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THE SURVEYORS' INSTITUTION

(Incorporated by Royal Charter),

12, GREAT GEORGE STREET, WESTMINSTER, S.W.

TRANSACTIONS.

VOL. XXVII.

SESSION 1894-95.



LONDON:

PUBLISHED AT THE INSTITUTION,

12, GREAT GEORGE STREET, WESTMINSTER, S.W.

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ERRATUM.

Page 91, line 19 should be line 17 from top of page.

The Surveyors' Institution

(INCORPORATED BY ROYAL CHARTER),

12, GREAT GEORGE STREET,

WESTMINSTER, S.W.

OFFICERS, 1894-95.

COUNCIL.

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ALEXANDER MILNE DUNLOP

CHRISTOPHER OAKLEY

ROBERT VIGERS

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JOSEPH HENRY SABIN

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ROBERT COLLIER DRIVER

CHARLES JOHN SHOPPEE

Honorary Secretary.

JOHN WORNHAM PENFOLD

Secretary.

JULIAN C. ROGERS

The Surveyors' Institution

(INCORPORATED BY ROYAL CHARTER)

Is established—

1. To secure the advancement and facilitate the acquisition of that knowledge which constitutes the profession of a Surveyor, viz.—the art of determining the value of all descriptions of landed and house property, and of the various interests therein; the practice of managing and developing estates; and the science of ad-measuring and delineating the physical features of the earth, and of measuring and estimating artificers' work.
2. To promote the general interests of the profession, and to maintain and extend its usefulness for the public advantage.

THE INSTITUTION consists of four classes, viz.—FELLOWS, PROFESSIONAL ASSOCIATES, ASSOCIATES, and HONORARY MEMBERS, with a class of STUDENTS attached.

A FELLOW must be more than twenty-five years of age, and must have acquired a practical knowledge of surveying in one or other of its branches as above defined; and must have passed the Examination declared in the Rules of Examination to appertain to the class of Fellows, or some other Examination in the United Kingdom or the Colonies which the Council may declare to be equivalent thereto.* Fellows have the right, conferred by the Charter, to use the letters F.S.I. after their names

A PROFESSIONAL ASSOCIATE must be more than twenty-one years of age, a Surveyor by profession, in practice on his own account or employed as an Assistant in a Surveyor's Office, and qualified for the class by having passed the Students' Proficiency Examination, or the Professional Associates' Qualifying Examination. Professional Associates have the right, conferred by the Charter, to use the letters P.A.S.I. after their names.

* The Council possess only a very limited dispensing power as regards the Examinations.

An ASSOCIATE must be more than twenty-one years of age, not a Surveyor by profession, but his pursuits must be such as to qualify him to concur with Surveyors in the advancement of professional knowledge.

An HONORARY MEMBER must be a person who, either by reason of his position or experience, or his eminence in science, may be enabled to render assistance in promoting the objects of the Institution, but who is not engaged in practice as a Surveyor in Great Britain or Ireland. He has the privilege of being present and taking part at all Ordinary General Meetings, and of access to the Library, but no right of voting, discussing, or otherwise interfering in the affairs of the Institution; nor is he called on to contribute to its funds.

STUDENTS (who must not be under eighteen years of age) qualify as such by passing the Students' Preliminary Examination. Candidates for Studentship who can produce a Certificate of having passed the Matriculation Examination of the University of Oxford, Cambridge, London, or any other University in the United Kingdom, or who have passed, with Honours, the Senior Local Examination of the University of Oxford or Cambridge, or who have obtained a Higher Certificate at the Examinations of the Oxford and Cambridge Schools' Examinations Board, are exempted from this Examination, and may be admitted by the Council on the recommendation (according to a form) of four Fellows and two Associates, or of the Fellow or Associate to whom they are or have been articled; but it is obligatory on all Students to undergo the Proficiency Examination at the close of their Student course, at the time and under the conditions applying in each particular case under the Rules of Examination.

The Council may accord to Students such privileges, subject to such terms, regulations, and restrictions, as they shall from time to time prescribe.

Any person desirous of being admitted into the Institution (excepting to the class of Students) must be proposed and recommended according to a form, in which the full name, place of business (if any), usual residence, and qualifications of the candidate must be distinctly specified. This form must be subscribed by him, and signed by at least six Fellows or four Fellows and two Associates, certifying a personal knowledge

of the candidate; or, in the case of a person who has passed the Qualifying Examination, by four Members of the Council, of whom the President shall be one, after careful enquiry into the antecedents of the applicant.

The proposal so made, being delivered to the Secretary, will be submitted to the Council, who, on approving the qualifications, will determine the class for which the candidate is to be presented for ballot.

The following are the rates of contribution to the funds :—

	Annual Subscription.				Admission Fee.		
	£	s.	d.		£	s.	d.
<i>Student</i>	1	1	0	.	—		
<i>Associate</i>	2	2	0	.	3	3	0
<i>Professional Associate</i>	2	2	0	.	3	3	0
<i>Fellow</i>	3	3	0	.	5	5	0

No person can become a Member (other than an Honorary Member) of the Institution, unless and until he pays as his first Subscription to the Institution, in the case of becoming a Fellow of the Institution, the sum of Eight Guineas, in the case of becoming a Professional Associate of the Institution, the sum of Five Guineas, and in the case of becoming an Associate of the Institution, the sum of Five Guineas.

All Fellows, Professional Associates, and Associates, are required, within twelve months after their election, to deliver to the Council an original Paper on some subject connected with the profession, or to make a donation to the Library or Collection.

The affairs of the Institution are under the management of a Council, which is elected annually, consisting of a President, four Vice-Presidents, sixteen Fellows, two Professional Associates, and two Associates.

The Session of the Institution commences annually on the second Monday in November, and continues to the end of May. The Ordinary General Meetings are held on every alternate Monday during the Session. At these Meetings original communications are read on professional subjects, and their merits fully and freely discussed. Every Member has the privilege of introducing one visitor to these Meetings. Members are entitled to a copy of any printed publication issued by the Institution after their admission.

THE OPENING ADDRESS

BY

THOMAS CHATFEILD CLARKE, PRESIDENT,

AT THE ORDINARY GENERAL MEETING OF

THE SURVEYORS' INSTITUTION,

NOVEMBER 12TH, 1894.

GENTLEMEN,

I should be very unworthy of the honour your kindness has conferred upon me, were I less alive than I am to the great responsibilities of the position which I occupy, and of the duties devolving upon me in that capacity, as head of this important Institution.

It is just 22 years since I was first elected a Member of your Council, and I may say for myself, and I think for most of my colleagues of those early times, that we were far from realising that we were laying the foundations of an Institution destined in our lifetime to rank with the leading professional societies of England.

I will not burden you with statistics, which are often wearisome and not infrequently misleading, beyond observing that when I first joined the Council of the Institution in 1872 we had but 279 of all classes, including a humble contingent of four Students, on our roll. Since that date the figure has, in spite of natural losses, mounted to nearly 2,400 of all classes, including (a fact of the greatest possible significance) a body of close upon 200 Students.

These are figures which indicate a great material success,

and bear testimony not only to the position which the Institution occupies in relation to important interests, but also to the extent to which it has fulfilled its duty to the profession which it represents.

But, Gentlemen, if we are to prosper in the future as in the past, and if we are to keep in touch with the times, we must be careful not to rest content with obsolete ideals. There are everywhere around us signs of departure from old land-marks, from principles which, however unchallengeable a few years ago, and however defensible in the abstract at the present time, are getting, not necessarily by any fault of their own, "out of correspondence with their environment." The spirit of unrest which is making such headway in every country in Europe is just now addressing itself with special vehemence and pertinacity to questions affecting property, an institution which, of course, lies at the basis of all national stability and progress. I am one of those who hold the belief that nothing would be more calculated to paralyze our national life than the wide prevalence of the preposterous demand for the nationalisation of all property, which has lately found favour in quarters from which better things might have been hoped for. But, while condemning in the fullest manner extravagances of this kind, I feel that we shall not be serving the cause of order and social stability if we allow ourselves to be drawn into an unreasoning advocacy of every franchise and privilege, unless it can be defended on grounds of abstract right and strict justice between man and man, and unless it is adapted to the wants of our time.

There is probably no body of men who possess, by the necessities of their calling, more practical sagacity than the surveyors of England, and it is my sincere trust that they will be found, in the difficult times which may shortly confront us, co-operating with the best intelligence of the

country in the endeavour to protect the institution of property, less by an insistence upon strict theoretical rights than by placing it on an equitable basis which it is hoped will command the confidence and assent of the large mass of the community.

Surveyors have, I am happy to say, not been slow to realise the importance of broadening the foundations of property by the multiplication of ownerships and by the extension of the allotments system wherever the conditions seem favourable for their introduction. I hope the day is not distant when we may possess in this country as powerful a conservative force (I use the word in its non-political sense) as France, Belgium, and Switzerland possess in their vast body of peasant proprietors. Not speaking in any way as an agricultural surveyor, but purely in my private capacity, I regard as the best guarantee for the restoration of prosperity and contentment in rural England, and the best aid to the stability of society, the fact of property being widely owned by the people.

In common with all other professions we are feeling the effects of the bad times upon general business, but I trust we have ground for hoping that the present stagnation will not be of much longer continuance. It was recently stated by Sir COURTENAY BOYLE that the amount of gold in the country was £20,000,000 in excess of the normal amount for the month in which he spoke. According to Mr. GIFFEN, a large accumulation of gold is the invariable forerunner of fresh developments of business enterprise; which seems quite natural. I think, therefore, it is safe to predict that, with the enormous amount of unemployed (and therefore cheap) money at present available, the spirit of enterprise inherent in our race is bound to reassert itself as soon as the want of confidence engendered by the unsound financial speculations of the last ten years has abated, though it must be admitted

the public at the present moment are very shy of going into fresh transactions. With confidence restored, the accumulated capital of the country is more likely than at any recent period of its history to seek home investment in reproductive works, especially as people have learnt in recent years to be content with a moderate return from investments in home securities in preference to pouring their money, for the sake of a high rate of interest, into the coffers of the defaulting Governments of other countries.

When the spirit of enterprise revives, the surveyor will find abundant and profitable scope for his activities, for, so long as the present constitution of society endures, people must resort to experts for advice and assistance in dealing with property, and, under no change of circumstances that I can conceive, within this limitation, can such advice and assistance be dispensed with; though I hold that at no time has the responsibility and anxiety of the practice of a surveyor been greater than of late, and that there is no immediate prospect of its being diminished.

I am sanguine enough to believe that a way will be found for employing some of the idle capital to which I have referred in the revivification of agriculture. It is possible that this most desirable result may be to some extent brought about by means of the agricultural credit bank system, which seems to have worked most successfully in Germany, Austro-Hungary, Italy, Belgium, Switzerland, France, and Russia.

Whether a system which works well in countries where the land is minutely subdivided would work equally well in a country where, as a rule, the holdings are much larger, I am not prepared to say. It is probably safe to assume that what has been successful elsewhere cannot fail to be of some benefit in England.

The plan on which these banks are worked appears to be as follows:—

“ A small syndicate ” (I quote from a document before me), “ which has determined to establish a credit bank, “ enrols, by invitation, and after careful selection, a certain “ number of members of known honesty and industry. The “ members make themselves answerable by common liability “ for the necessary capital, whether obtained from some “ ordinary bank, or from individual investors, or from “ depositors. It is thought the capital could be so raised “ by the members at a cost of 4 per cent., and that it could “ be placed out at 6 per cent. or $6\frac{1}{2}$ per cent.

“ Every applicant for a loan must be a member of the “ bank, and must satisfy the managing committee as to “ his personal security, supported by approved sureties, “ and as to the probable productiveness of the outlay for “ which the loan is asked, and to which purpose it must “ alone be applied, or it may be promptly called in. Loans “ should not be extended beyond 12 months except by “ arrangement for repayment by instalments.

“ The utmost punctuality of payment both of interest “ and of capital should be insisted on, and any defaulter “ should be, together with his sureties, promptly called to “ account. The parish being taken as the area to be “ covered by the bank, the managing committee will be in “ a position to know accurately the personal value of an “ applicant and of his sureties, both as to substance and “ character. In this way, especially if members be them- “ selves depositors, there should be no stigma attaching to “ the application for a loan, the very granting of which “ should be a certificate of industry and respectability.

“ The rate of interest on loans could hardly be less than “ 6 to $6\frac{1}{2}$ per cent., to cover salary of treasurer, the only “ paid official, and establishment charges, and to allow of “ a small margin to be carefully accumulated in a reserve “ fund, destined eventually to repay the borrowed capital

“and to provide a fund which could be lent out to its
 “originators at a very low rate of interest. In order to
 “admit poor people to the benefits of the bank, it is not
 “advisable to have any share capital, nor division of profits,
 “nor even of reserve fund on dissolution, which might other-
 “wise be provoked merely to that end. A small entrance
 “fee of 5s. might be charged to each member. We then
 “come to the point as to whether 6 to $6\frac{1}{2}$ per cent. would
 “be prohibitive to business being done or not.

“This rate would be cheerfully paid, for the applicants
 “would generally be persons to whom no other means of
 “effecting a loan would be open at all, except perhaps
 “through the much more expensive agency of usurers,
 “whose alluring offers may be found in any local paper.

“The extinction of usury is alone almost sufficient
 “justification for the creation of these banks. It is not
 “only the poor clerk who falls a victim to the local Shylock,
 “but too often also the small occupier and the struggling
 “village tradesman.”

Though less connected with agriculture than many of
 your previous Presidents, I yield to no one in the interest
 I take in the welfare and well-being of the various classes
 interested in the soil of this country, and I have watched,
 with the deepest solicitude, the progress of the various
 enquiries into the causes which have brought agriculture
 into its present lamentable condition in the short space of
 18 years, and I should rejoice if some means consistent with
 the general welfare of the community could be found to
 give relief to the agricultural interest.

If the causes still remain, as I fear they do, it is from
 no want of searching investigation into all the facts and
 conditions of the problem. It is extraordinary that, with a
 standard of agriculture which has been the model for almost
 every country in the world, we are not able to compete in

our own markets with the produce of countries so remote as the Western States of America, which have to pay in freight, before entering this country, what amounts to a protective duty of 5s. or 6s. a quarter.

It is customary to assert that the prosperity of agriculture means the prosperity of the general community, as being the largest single interest in the country, but it cannot be denied that the cheapness of the staple articles of food have, during the last few years, contributed largely to the generally increased comfort of the working classes.

What in effect is happening is this—I speak with all diffidence,—our vast output of manufactured goods is being paid for with the surplus food products of other countries, fitted by nature for the production of cereals to the greatest advantage. The very abundance, and therefore the cheapness, of these cereals is an important element in relation to the question of our manufacturing prosperity. Is there any prospect of our ceasing to exchange that which we produce to the greatest advantage for that which we produce to the least advantage? I think not, and, to my mind, this consideration materially narrows the problem.

Is there, on the other hand, any reasonable ground for supposing that the flood of food imports is likely to diminish? I fear the evidence all points the other way. Where are we, therefore, to look for a mitigation of these conditions?—in other words, for a means of enabling the agricultural classes to make a living out of the land without looking in directions where every interest is actively or passively arrayed against them,—I mean the interests of the great body of consumers.

I refuse to believe that the land of this country will remain, I will not say unproductive, but unremunerative. But it is clear that there is something in the present conditions of agriculture which calls for the gravest

consideration, and that these conditions cannot much longer exist.

Things are apparently moving towards some great economic change in the tenure and the use of agricultural land, though what this change is to be, and how far existing conditions will be modified or subverted, no man living can possibly say.

However much opinions may differ as to this, all are agreed that it is a matter of primary importance to arrest, if means to do so can be found, the migration of the agricultural labourer to the towns. This class is put, in the census of 1891, at, in round figures, 799,000, including both sexes, as compared with 890,000 in 1881, and 996,000 in 1871, representing a decrease in the class of nearly 20 per cent. in the twenty years. There is already a considerable scarcity of agricultural labour in England, and a serious scarcity in Scotland, and it is, therefore, of supreme importance to endeavour to discover the causes which are operating towards denuding the rural districts of the country of their agricultural population. From this point of view the very able and conscientious report on the agricultural labourer by our distinguished Member, Mr. WILLIAM C. LITTLE, is disappointing reading. The general conclusion at which he arrives, in the summary of his report, is that the material condition of the agricultural labourer has distinctly improved everywhere, due in a measure to an increase in his earnings, but also very largely to the cheapening of the commodities which are the necessities of life. The increase in his earnings of course includes the advantage which accrues to him from the decrease of competition in his calling and the withdrawal of women from field work. The least satisfactory circumstance affecting the life of the labourers is, according to Mr. LITTLE, the condition of the dwellings in which a considerable number of them are compelled to live.

Turning to the body of the report, we find that the investigations of the Assistant-Commissioners under the head of cottage accommodation, were addressed to the four subjects of (1) supply, (2) situation, (3) condition and construction, (4) ownership and tenure. As regards supply, as might have been expected, the conditions varied indefinitely in each of the 38 districts covered by the inquiry. The supply was reported as sufficient in three districts; as fairly sufficient in 22; as generally sufficient, with qualifications, in 11; as barely sufficient in two districts. It is, therefore, clear that very little can be alleged as regards deficiency of supply. As regards the second head, "situation," matters seem to be less satisfactory. There appears to be a feeling against living in farm cottages, very natural in view of the fact that man is a gregarious being; at the same time, it must be conceded that a preference for village life is hardly consistent with the frequent complaints that the labourer has to walk a long distance to his work, and it is not at all clear that, unless estate cottages were made peculiarly attractive, the labourer would be tempted away from the society of his fellows. On the subjects of "condition and construction," the Assistant-Commissioners report that in six districts they found the state of things good generally, in eight fair, in eleven varying from good to bad, in eight bad generally, and in five very bad. Here, then, there is obvious room for improvement, especially as regards the accommodation required for comfort, to say nothing of decency. Some of the information given under this head is extremely instructive, and, while it is undeniable that the average accommodation available for the labourer in country districts is superior to that which he secures when he migrates to the towns, it must be borne in mind that the greater the contrast which can be made between the two, the more likely will he be to remain upon the soil.

As regards "ownership and tenure," it is stated in the reports of the Assistant-Commissioners that there is overwhelming testimony to the effect that estate cottages are far superior to all others, that the cottages owned by others than landowners are, on the average, in a low state, but that cottages held by leaseholders or lifeholders are the worst of all; and this more particularly when the property is copyhold. It is, therefore, tolerably clear that the offenders are for the most part persons who have bought cottage property as a speculation, and deal with it on strictly commercial lines; and it is this class whose misdoings should, and will under the new parochial machinery, be very justly controlled by the Public Health Act Amendment Act, 1890, and the Housing of the Working Classes Act, 1890. I am sure I have your sympathy in expressing a pious aspiration that this will be the case.

I have said that, from the point of view of retaining the labourer on the land, Mr. LITTLE's report is somewhat disappointing, although I have no fault to find either with its thoroughness or with its fairness. It is, I fear, only too true that, when all is done in the way of improving the labourer's dwelling, we shall still be far from satisfying the conditions on which we shall retain him on, to say nothing of attracting him back to, the land. Whether the Parish Councils Act, with the undefined possibilities which attach to it, will operate sensibly in this direction, by reviving village life and giving the labourer a more intelligent interest in his surroundings, and a position of responsibility and trust in relation to public affairs, it is impossible to say; but such must be the hope of every right-thinking man. The causes, whatever they are, which have led to the present state of things have, no doubt, been operating unobserved over a long course of years, and it is, perhaps, too much to hope that any remedy we can apply will

tell, to any great extent, in the lifetime of the present generation.

It is probable that during the next Session of Parliament we shall see another attempt to extend the scope of the Agricultural Holdings Act of 1883. I am aware that many of my professional brethren claim that, over a large proportion of the best estates, the tenants gained nothing by the Act, and were perfectly satisfied with the agreements under which they held; but it will hardly be contended that confidence and contentment were universal, and that there were not many cases in which the tenant needed protection for his outlay. Be this as it may, the Committee of the Central Chamber of Agriculture have formulated proposals for the amendment of the Act of 1883, which have for the most part been incorporated in a Bill introduced by Mr. CHANNING last Session, and which will be reintroduced next Session.

The "sitting tenant" makes his reappearance in the new Bill. The theory at the bottom of this movement in favour of the "sitting tenant" is that his improvements are liable to confiscation by an increase of rent. Whatever be the abstract truth of this theory, I do not think that in these times there is much probability of harsh or unjust treatment on the part of landlords, who are glad enough to get, and to retain, tenants on almost any terms.

Another important particular in which Mr. CHANNING'S Bill proposes to modify the Act of 1883 is by increasing the number and rearranging the subjects of "first-class improvements" for which compensation is payable, and for which the landlord's consent is required, so that a tenant will be able to carry them out on giving statutory notice to his landlord, unless the landlord decides to execute them himself. It is also proposed to give the tenant compensation for damage by game, and for capricious notice to quit. The Bill also proposes to adopt from the Scotch Act of 1889 the

principle of settling cases of agricultural compensation by a reference to a single referee, unless the parties otherwise agree. It abolishes the right to distrain for rent, provides for greater freedom of cropping and selling off produce from the holding, and extends the provisions of the Act of 1883 to tenancies of a shorter period than one year, and to allotments and cottage gardens. It also provides for the appointment of official valuers for each county.

As this Bill will probably form the subject of a Paper in the coming Session, I will not attempt here to give more than a sketch of its principal proposals. That many of them will be strenuously, and possibly successfully, resisted, there can be no doubt whatever, but those who hold, as I do, that the situation is, in some parts of England, well-nigh desperate, will not look too jealously at proposals which, while not inimical to the landlords' interests—or at all events their ultimate interests—seek to give tenants heart and confidence, and which, by affording them definite and tangible legislative protection for their outlay, may do something towards inducing bankers and investors to come to the rescue of the impoverished agriculturist.

Other proposals of a similar kind have found expression in the Market Gardeners' Compensation Bill of last Session, prepared and brought in by gentlemen of such diverse political views as our good friend Sir EDMUND LECHMERE, Mr. JESSE COLLINGS, Sir ANDREW ROLLIT, Sir T. ESMONDE, Mr. CHANNING, and Mr. MAGUIRE. If there is anything in names, this Bill may therefore be regarded as non-political, and is, I see, declared by our Member Mr. PROTHERO (an undoubted authority) to be a fair arrangement, subject to certain modifications.

As amended by the Standing Committee on Trade, it proposes to enact that the 34th section of the Agricultural Holdings Act shall extend to every fixture or building

affixed or erected, either before or after the commencement of the Act, by a tenant for the purpose of his trade or business as a market gardener. It is but justice that market gardeners should have the right to remove buildings which they have erected for the purposes of their business if coupled with an option to the landlord of acquiring them if he chooses to do so. To what extent the tenant should be compensated for fruit trees and bushes, strawberry plants, and other similar crops, is not so easily decided, but as regards fruit trees I am inclined to agree with an authority, quoted by Mr. PROTHERO, that when they acquire a girth of something like 9 inches below the branches they should pass to the landlord, the tenant having, presumably, by that time recouped himself for his outlay. Considering the parentage of the Bill and the careful weighing and sifting which it has undergone at the hands of the Grand Committee on Trade, there is very little doubt that it will pass, if re-introduced next Session, and, if it does so, it will have a considerable effect on an industry which is assuming greater importance every day, and in which may lie an element of agricultural recovery in the neighbourhood of large markets.

Twenty-five years ago I had the pleasure of reviewing, in a Paper read before the Institution, the progress made, up to that time, in providing improved dwellings for the industrial classes. Fifteen years later, in April 1884, I read another Paper on the same subject, in which I expressed my conviction that great and substantial progress had been made in the interval. It will not, therefore, be out of place if I devote a few moments to considering what has since been done in this direction. In questions of public health the interests of all classes are identical. It is not possible to confine infectious diseases, or the crimes which originate from the misery of the people, to the localities from which they spring; it is also becoming more an axiom than was

formerly the case, that the contentment and well-being of each class of the population is the common interest of all classes, apart from the higher feeling we entertain towards them as members of the community at large. This being so, I think we shall shortly have to face the fact that the better and more wholesome housing of vast masses of our population, in London and other great cities, must be dealt with on a scale of which we have had no previous experience. Great as has been the work done in this direction by the Peabody Trust and by the Industrial Dwellings Companies, it is a mere drop in the ocean, in view of the necessities of the more densely peopled centres, especially in the Metropolis. It is no doubt true, in the case of London, that, from causes difficult to define, the rate of increase in the population has steadily declined, from 21·2 per cent. in the decade ending 1851 to 10·3 per cent. in the decade ending 1891, but, even with this diminished rate of expansion, the population of the Metropolis increased by nearly 400,000 persons in the course of the last decade. The district in which the greatest density of population prevails at the present time is St. George's-in-the-East, where 22·1 per cent of the population consist of families occupying each a single room. As a body largely interested in matters of sanitation, and specially concerned with the management of house property, we are bound to give this state of things the most serious consideration. How is the better housing of these unfortunate people, who, by no fault of their own, are compelled to live near their work, and have no choice but to pay competitive rents, which necessarily means more limited accommodation, to be reconciled with unrestricted property rights? We have here, in an urban garb, the very same question of a congested population struggling with excessive rents, which, in the rural phase necessitated, or, if you prefer the phrase, led to the fixing of, judicial rents in Ireland.

I am no advocate of State interference except as a matter of dire necessity, and I merely draw the parallel by way of indicating the line along which the people may seek relief, unless wise legislation, and, what is more valuable still, the sympathetic action of the ratepayer, does something to relieve the growing tension.

I cannot but think that owners of large estates in London might well allot portions of their properties to a larger extent than has hitherto been the case for the erection of industrial dwellings, and I am happy to have met with instances within my own practice and knowledge where this course has been taken by City companies, and notably by the owners of one or two of the large private estates in the Metropolis.

From a professional point of view there has been no more important piece of legislation in recent years than the "London Building Act, 1894," which received the Royal assent on the 25th August last. It may be worth while to place on record in this Address the genesis of the new measure, and to indicate the leading share which the Institution has had in moulding its provisions in the various stages of its evolution. For many years past it has been felt that the Act of 1855 has been outgrown by modern requirements, and that the existing law was insufficient for regulating many details of new construction and materials. Endeavours have been made to cure this by several auxiliary enactments, and by by-laws framed by the Metropolitan Board of Works, and subsequently by the London County Council, under the Metropolis Management and Building Acts Amendment Acts, 1878 and 1882. It was felt, therefore, that the time had come for the codification of the law relating to building, and the first step taken in the matter was the production of a draft Bill under the title of the "London Building Law Consolidation Bill," issued by, and apparently prepared

under the auspices of, the Local Government Board. Copies of this draft Bill were forwarded to the Institution, and to other societies, accompanied by a request that the Institution would furnish the Department with comments on the Bill. The Council pointed out, in reply, that what was really wanted was not consolidation, but a new Act; but, on being further pressed for suggestions, they appointed a strong Committee, who devoted a large amount of time and labour to the work of engrafting on the Consolidation Bill the additions and amendments in their opinion necessary for making it a useful working measure.

The matter apparently slept until, in December of last year, the Council received copies of a new Building Bill, prepared by the London County Council, embodying some of the suggestions made by the Council of the Institution to the Secretary of State in connection with the Consolidation Bill already referred to.

The Building Committee of the Institution devoted a very large amount of time to the consideration of the new Bill, and finally nominated their colleagues Mr. RICKMAN, Mr. GARRARD, Mr. STEWARD, and Mr. CUBITT NICHOLS to represent the Institution at a conference with the Building Committee of the London County Council, and to press the adoption of the amendments proposed by the Institution.

They were met in the matter in the most friendly way by the representatives of the London County Council, but, failing to obtain concessions on some important points, they were authorised by the Council to draw up and lodge a petition in opposition to the Bill.

After a prolonged fight in the Committee Rooms of the House of Commons, the representatives of the Institution (for this purpose Mr. STEWARD, Mr. GARRARD, and Mr. CUBITT NICHOLS) succeeded, themselves or in concert with others, in

modifying, or getting rid of, most of the more obnoxious features of the Bill, and were able to appear, in support of the greater part of it, before the Committee of the House of Lords. The Council, and particularly those Members of it to whom I have referred, have spared neither time nor trouble in the endeavour to secure a Building Act worthy of this great Metropolis, and, although it has involved the Institution in an expenditure of nearly £900, the Members will, I am certain, feel that the money had been well bestowed.

Before leaving the subject I may, I think, congratulate the Institution on the position accorded to it by the Act, in relation to the Tribunal of Appeal. The position conceded to the Institution nominee by the London Council General Powers Act, 1890, is greatly emphasised in the present Act by the establishment of the tribunal on a formal basis, and by the great enlargement of the scope of its operations. The willingness of the London County Council to refer appeals on technical matters to a tribunal of experts may be justly said to be a strong testimony to their desire to act fairly as between the various interests involved.

I suppose I shall be expected to say something on the subject of "Betterment," although it has been discussed *ad nauseam*. I presume we must regard it for the present as in a state of suspended animation, owing to the action of the House of Lords in excising the clause which embodied it from the County Council Bill; not on the ground, judging by their report on the general question, that the principle is itself unjust, but that it has not yet been clothed with any practical plan for putting it into equitable operation. It is only the extreme opponents of the principle who deny, in the words of the Lords' report, that "persons whose property " has clearly been increased in value by an improvement

“effected by local authorities should specially contribute “to the cost of the improvement.” The whole difficulty arises from the incertitude of the operation of a public work in raising the value of neighbouring lands, and it is noticeable that the Lords point out that the evidence of eminent valuers is in conflict on the question. I, for one, am not disposed to quarrel with some of the proposals of the Lords’ Committee for protecting from possible injustice the persons to be charged with a “betterment” rate. It is fair, for instance, that, within a reasonable time after the completion of the work, the owners of the properties affected should receive notice of the amount of the special rate which the local authorities propose to impose on them; but this does nothing to remove the difficulty of deciding whether the period is sufficiently long to adequately test the effect of the improvement, or so long (after the execution of the improvement) as to damage the market value of the property. But it is, of course, the peculiar duty and province of a surveyor to estimate and advise on such questions.

I am not sure that I can give an unqualified acquiescence to the proposal to give the person to be charged the option of going before a jury; not that I have any feeling as regards the fairness of this “Palladium of British liberty,” but because a jury is summoned *ad hoc*, whereas the decisions of an arbitrator, dealing with all matters arising under the scheme, would be more likely to result in an equitable distribution of the charge among the various persons affected.

The “worsement” principle is reduced to the narrowest limits by the proposal of the Lords’ Committee to confine it to property, in the immediate neighbourhood, belonging to the owner charged with the betterment rate. It is not probable that many claims of this kind can arise, or could

be substantiated if they did arise, and the contingency, thus limited, may, I think, fairly be disregarded in considering the question.

I cannot, however, agree with the proposal that, where the "owner is of opinion" that the charge exceeds the enhancement of market value due to the public improvement, he should be entitled to claim that the Local Authority should purchase the property in question, at its previous market value. Surely a right to compel the Local Authority to purchase should depend upon something more tangible than the "opinion" of the owner, and I cannot think that the suggestion is put forward seriously. There can be no objection to the settlement by arbitration of any question that arises as to the incidence of the betterment charge between any of the persons entitled to different interests, though it would seem that the matter could be better dealt with by the publication of example cases after the manner, though not necessarily on the lines, of those prepared by our Associate Mr. HARPER in connection with the question of the rating of ground values.

There was a good deal of evidence before the Lords' Committee with reference to the alternative principle of "recoupment": some of it of a very conflicting kind. The Report seems to imply a preference for this method of recovering the cost of an improvement, and a belief in its sufficiency, if the local authorities can be relieved of the necessity of buying out the trade interests, these having, so far, proved most costly in carrying out the large schemes in the Metropolis and elsewhere. Personally, I doubt the advisability, from the point of view of public policy, of allowing local authorities to become land dealers on a large scale, and the experience of some few years since in this direction should be a warning to avoid what then proved to be a great scandal.

On the whole, notwithstanding the temporary *impasse*, I think the air has become to some extent cleared by the fiery ordeal through which the question has passed, and that a plan will yet be found of imposing, in an equitable way, a charge which most people agree is not inequitable in principle and essence, and which might operate with advantage by reducing the cost of Metropolitan improvements, and thereby increasing the extent of many needed works.

There has been published within the last few weeks a Report of great importance on the question of amalgamating the Corporation of London, as now existing, with the County Council of London.

Considering the large amount of property held by the City, this question cannot be without interest to our Institution.

The Report in question, signed by such men as Mr. LEONARD COURTNEY and Lord FARRER, though embracing in its recommendations some very sweeping changes, is couched in the most moderate terms.

How far its perusal will persuade men that the time has come for unification I cannot say, but that the largest and most important city in the Empire should have one grand municipality, based on modern principles of legislation, seems to me to be an argument well worthy of favourable consideration.

No one who has known and estimated the historic value of the work of the Corporation of London in the past, would desire to say one word in its disparagement; but it has now to be seriously considered whether this square mile in the heart of the Metropolis, with a governing body of an ancient, but "out of date" character, is not an anomaly, and whether the time has not come for facing the problem,

and placing the future government of the City in its proper relation to the surrounding districts.

The main proposal of the Report is to transfer to the County Council all the large works and funds in connection with bridges, markets, parks, and open spaces, together with other improvements, and to confer on the local authority to be created a sum of £10,500 per annum, to meet the expenditure on certain schools and hospitals in which the City is interested. Another of the proposals is to give to the City, as a local authority, a representation of eight councillors and one additional alderman, but I think that, looking to the large rateable value of the City, viz., about an eighth of the whole value of the Metropolis, this would be a very inadequate representation of such extensive interests. Without wearying you with details, it is sufficient to say that the proposal is that the "new" City of London should be controlled by a local authority or council, consisting of 72 representatives, the whole area being divided into 24 wards, each under a mayor, but with no provision for future aldermen. The Lord Mayor of London would then really be the head of the large and united municipality of London, a further important proposal being that the City police force should, pending possible changes in the future, be for the present amalgamated with the Metropolitan police.

As regards the several controversial subjects on which I have ventured to touch, it is unnecessary to remind you that I speak purely in my private and personal capacity, and not in any way *ex cathedra* as the President of this Institution, which, I am happy to say, contains men of all shades of opinion, a fact in which much of its strength consists, and which tends to give value to its discussions in the eyes of the public.

There is one matter of special interest, to which I should

like to refer, viz., the presentation at the Annual Dinner in May last, to our valued Secretary, Mr. JULIAN C. ROGERS.

It was felt that, after 25 years spent in the service of the Institution, the moment was opportune for acknowledging the capacity, the energy, the sound judgment, and unwearying labour, in promoting the interests of the Institution, by which Mr. ROGERS has not only gained the confidence of the Council, but that of the Members at large.

I think it should be on record in our archives that the testimonial consisted of a handsome service of plate, with a purse of £400, subscribed by upwards of 700 Members, and, as I said in presenting it, I trust that the recipient may long be spared to do for the Institution as efficient service in the future as he has done in the past.

I should like, before resuming my seat, to turn for a moment to our own internal concerns. If there is one direction more than another in which the Institution has succeeded in realising its ideals, it is in grappling with the very difficult matter of professional education. It would be too much to claim completeness for any system, but I think we have achieved an unusual measure of success in the thirteen years which have elapsed since we cut ourselves adrift from the old system of co-optation, and launched our bark boldly on the *mare incognitum* of technical education. What some of us felt at the time to be a slightly hazardous experiment has been more than justified by results, and the time has come, I think, when the Institution may take measures for so broadening the basis of its Examinations as to include in one or other of its classes of Members persons connected with other branches of our multifarious profession. I think, for instance, that we might very fairly so modify our rules as to admit into our very important class of Building Surveyors the Civil

Employés on the Royal Engineer establishment, who have passed an Examination quite as difficult and searching as our own Examination.

I have spoken of the profession of surveyor as multiform, but I have noticed in some quarters a strong desire to limit the scope of the surveyor's profession, and to set it apart from the co-related profession of the architect, and to deny the latter name to those who practise as surveyors also. I can see no reasonable ground for such a limitation, nor is it justified by the historic position of surveyor, for there are many valuable and responsible appointments under that name in which, in addition to the knowledge strictly appertaining to a surveyor's training, the knowledge, taste, and skill of an architect must be exercised. I deprecate entirely the artificial distinction sought to be drawn. I desire to welcome to our ranks all those who have sufficient "all round" powers and ability to unite practical skill in the management of property and building with artistic taste.

As you are aware, we are seeking to connect with the Institution the great body of Irish Land Agents, and have settled the working arrangements necessary for the purpose. Difficulties arising out of the rather rigid provisions of our Charter and By-laws have delayed the conclusion of the business, but it is hoped that matters are now in a fair way of settlement. The result will be to extend to Ireland, with local modifications, the Examination system of the Institution, and to do the same in Scotland.

Perhaps one of the most gratifying features of our Examinations is the evidence, afforded by the sources from which the candidates are drawn, that our profession will number in its ranks in the future, as it has done and now does, a large proportion of highly educated and cultured men. So long ago as 1869 our Past-President, Mr.

WILLIAM STURGE, read a valuable Paper before the Institution on the Education of the Surveyor, and in 1870 Mr. JEREMIAH MATHEWS reintroduced the subject in a Paper entitled "A Plea for Culture in the Profession of a Surveyor," in which he insisted on the necessity of a thoroughly sound and liberal general education, as equally important with the special technical education by which a surveyor acquired a knowledge of his profession. Viewing the matter in this light, it is gratifying to find that year by year, on the lists of the candidates who present themselves for examination, and who represent the future of the Institution, there is a large leaven of public school men, University graduates, and others of high educational training, which cannot fail to affect favourably the general standard of the profession, and to maintain the honourable position which the surveyor has won for himself among the ranks of professional men.

Mr. C. K. BEDELLS (Fellow) said it was with great pleasure that he rose to propose a hearty vote of thanks to THE PRESIDENT for his very admirable Address. The services rendered by Mr. CHATFIELD CLARKE to the Institution during his Membership, the length of which had been brought home to the minds of the Members present by the dates given in the Address, had been of the greatest possible value, and he had placed the Members under a further obligation by opening the Session with a Paper which led to the hope, or rather confirmed the certain belief, that he would, as PRESIDENT, add very greatly to the services which he had already rendered to the Institution. It was not usual, nor was it desirable on such occasions as the present, to enter into a detailed discussion of the subjects, however important they might be, dealt

with in THE PRESIDENT'S Address; but he was sure all would agree that matters had been introduced and considered which might profitably form the foundation of future Papers and discussions in that Hall.

Mr. W. WRIGHT (Fellow) said he was exceedingly glad to avail himself of the opportunity afforded him of seconding the vote of thanks so ably proposed by Mr. BEDELLS.

As the mover had said, it was contrary to recognised usage to enter into any discussion of the many valuable suggestions and important details dealt with in THE PRESIDENT'S speech, and he only rose, therefore, to heartily endorse the words of the proposer, and to cordially second the vote of thanks to Mr. CHATFIELD CLARKE for his Address.

THE PRESIDENT, in reply, said that, in acknowledgment of the very generous terms in which the vote had been proposed by Mr. BEDELLS and seconded by Mr. WRIGHT, he could only find one word to say,—“Thank you.” He felt that it would be impossible for any man to compile and deliver, before an intelligent body of practical men like the Members of the Institution, an Address which should contain no points on which opinion was divided; and, even if it were possible, it would scarcely be desirable that such unanimity should exist; but he had tried, and he hoped with success, in dealing with broad and general principles, to write nothing and to express no opinion which could in any way offend the susceptibilities of Members of the Institution who might on some points be not in entire agreement with his views. It was, he thought, most desirable that, in the future, as in the past, the value of honest differences of opinion should be recognised, while, at

the same time, the expression of such differences should with all courtesy be used to elicit, so far as it was possible within moderate lines, the real truth, which probably lay between the two extremes.

The vote of thanks having been carried by acclamation, the Meeting then adjourned.

PAPER ON
THE INCIDENCE OF TAXATION ON
LAND.

By A. DUDLEY CLARKE (FELLOW).

*Read at the Ordinary General Meeting of THE SURVEYORS' INSTITUTION,
Monday, November 26th, 1894.*

DANIEL WATNEY (VICE-PRESIDENT) IN THE CHAIR.

ONE of the results of the agricultural depression has been to give greater prominence to the question of the incidence of taxation on land; and the additional burden imposed by the Finance Act, 1894, necessitates a thorough investigation of the matter. In the Presidential Address delivered before the Institution at the opening of last Session, this subject was referred to, as it was at the opening meeting of the Incorporated Law Society. I hope, therefore, that in giving some attention to it this evening we may not be unprofitably spending our time.

The question has, for some time, been the subject of considerable controversy, which will now, doubtless, become still more acute. Opinions have been freely expressed by leading men on both sides, and it is undeniable that the issue involved is one of much importance. The pressure of increasing burdens on taxpayers at a time of depression, when they are less able to bear it, is, in many cases, very

hard, especially to those whose interests are connected with land. They complain, and with some justice, that upon their shoulders is placed more than an equitable share of the load borne by the community.

In dealing with the nature and extent of these burdens, and considering their incidence on land as compared with personal property, we must bear in mind that taxation, to be just, must be equal in the true sense of the word. Land is the only form of real property that I propose directly to touch upon; but it will be seen, of course, as I proceed, that other kinds of realty must, of necessity, be frequently included under the term "land," although the inferences drawn may only, in a modified degree, apply to them.

As Imperial taxes are of earlier origin than those of local application, I propose to review first the land and property taxes and death duties, and afterwards to deal with the poor rate.

We are told, by no less an authority than MILL, that "the existing land tax ought not to be regarded as a tax, but as a rent-charge in favour of the public; a portion of the rent reserved from the beginning by the State, which has never belonged to, or formed part of, the income of the landlords, and should not, therefore, be counted to them as part of their taxation, so as to exempt them from their fair share of every other tax. As well might the tithe be regarded as a tax on the landlords." This is a very strong expression of opinion, and forms a broad base for supporting the well-known theory of hereditary which has been accepted by many leading politicians and others. It was adopted by Mr. GOSCHEN in his Report on Local Taxation in 1871, and relied upon in his opposition, in the House of Commons, to a resolution proposed by Sir MASSEY LOPES, in 1881, for a Government inquiry into the Incidence of Imperial and Local Taxation.

But may we not assume that the theories of political economists are subject to fluctuations and modifications? I find, in the preface to the edition of MILL from which I have just quoted, the remark (explaining the reasons for introducing the work to the public) that “no existing treatise on Political Economy contains the latest improvements which have been made in the theory of the subject.” This was written some years ago; and as we are not now less averse to recognise changes in the shape of “latest improvements,” or changes exhibiting perhaps no signs of improvement at all, it may be possible to shew that the theories of this great authority are not those adapted to the times, and require amendment accordingly. It will be interesting to surmise what form this question would take in the mind of some new philosopher, of equal ability, who would favour us with the expression of his views of “Political Economy up to date,” as MILL’s professed to be at the time it was introduced.

I submit that no just comparison can be made between the land tax—which for centuries of its early incidence was levied jointly with a tax on other property, and imposed at intervals of necessity, bearing lightly or heavily as the requirements of the State might be—and a property like tithe, which, from its name, implies a fixed quantity, and which has always been an inseparable and continuous charge upon the produce of land.

In regarding the land tax as an hereditary burden (whatever the term may mean, and taking it for what it is worth), I am prepared to grant that it is so, if I may include also as hereditary the twin tax on other property which, until recent times, was levied jointly with it. That a tax on “moveable” property, imposed by the same ordinances and statutes as the tax on land, existed from remote times, until it fell into disuse by persistent evasion

and fraud, and was finally extinguished by the Government at the time when the land tax was made a perpetual charge, admits of ample historical proof. I will, for the purpose of establishing this fact, refer as briefly as possible to history, consistently with making clear the material points bearing on the injustice of the procedure; but, as this injustice is one of the causes of the present discontent, it is important to follow the details.

Before personal property existed to any appreciable extent, land was, of course, alone available for taxation. In Anglo-Saxon times a tax, imposed in the first instance on account of the invasion of the Danes, was levied on the "hide" of land, and called the "*Danegeld*." It was afterwards levied, ostensibly for similar purposes, at recurring periods until 1163, when it was merged into other charges, as I propose to shew. A land tax of a similar description, on the amount of land which could be ploughed by one plough during a year, called the "*Carucage*," was also levied occasionally until 1224, when it was separately charged for the last time.

At the time when the foregoing taxes were in operation, the tenants of Crown lands, who held by knight's service, freed themselves from liability to personal service under the feudal system by payment of a tax called "*Scutage*." The money thus raised was probably preferred by some of the early kings, to enable them to hire mercenaries to carry out exploits in which the knights did not care to take a personal part. The non-military tenants of the Royal demesne, both urban and rural, were also taxed under the term "*Tallage*," in respect of the property they occupied.

But, in the year 1188, an important change took place, by which, within a few years, Danegeld, Carucage, Scutage, and Tallage were destined to *disappear as separate and distinct charges*, being merged into a comprehensive system.

of taxation of property, analogous (so far as the times would admit) to the property tax of the present time. Personal property had for the first time become of sufficient extent to bear a share of the burdens or requirements of the State. This change originated with a grant of general taxation, at the time of the second Crusade, for the purpose of expelling SALADIN from Jerusalem, hence its name, "the Saladin Tithe." This ordinance is important, as being the first attempt at a general taxation of land and personal property jointly, and as being the forerunner of the long line of successive grants and taxes, levied under different names, but similar in their incidence, extending to the present time. Its provisions were to the following effect:—

" 1. Everyone shall give in alms this year the tenth of his rents and moveables. Except, in the case of knights, their arms, horses, and clothing; and in the case of the clergy, their horses, books, and clothing, and vestments and Church furniture of every sort; and except the jewels of clergy and laity."

2. The second section has reference to collection. " This is to be made in every parish in the presence of the representatives of the church, the knights templars and hospitalers, the king, the baron, and the clergy; after excommunication denounced by ecclesiastical authorities in every parish against the fraudulent."

Then follows the jury clause:—" And if any one shall, in the opinion of those presiding at the collection, have given less than he ought, let there be chosen from the parish four or six freemen, who, on oath, shall state the amount which he ought to have stated; and then he shall add what before was wanting."

" 3. The third section contains an exemption in favour of the clergy and Knights who had taken the Cross, and would serve personally in the expedition."

“ 4. The fourth section provides for the promulgation of “ the Ordinance in every parish.”*

It is thus evident that persons owning property, either real or personal, contributed to the tax by means of their rents or by their “moveables.” When similar grants became customary, as they did by their continuance, to meet various expenses, the fact of the proceeds of the land being taxed under the grants justified the abandonment which took place of the beforementioned special impositions on land *as separate charges*.

The sums which were then raised varied from time to time according to necessity, at times being as high as tenths, and at times as low as fortieths. As might have been foreseen, they were frequently difficult to collect and often fell short of the expected amount owing to the opportunities afforded for fraudulent excuses and evasions, which were sometimes, no doubt, connived at by the persons locally deputed to make the assessment and collection. In order to remedy these defects an important change was effected in 1334, when the tax, which by this time had become known as the “*fifteenths*” and “*tenths*,” was levied as a fixed sum or quota. A “fifteenth” was the fractional part charged on the counties, and a “tenth” on the towns, and at this date these fixed quotas for each district amounted to about £39,000 for the whole country. As these fixed sums had to be collected, less opportunity occurred for evasions and inequalities among the taxpayers in a parish or district, for the obvious reason that each person would be interested in seeing that his neighbour paid his proper share.

This reform gave much satisfaction, and, the tax being thus collected with greater fairness, and, consequently, with

* “History of Taxation and Taxes in England.” By STEPHEN DOWELL. The writer of this Paper is indebted to the author of this valuable work of reference for the information it furnishes.

greater facility, its permanence became established. "One," "two," or "three-fifteenths" and "tenths," was easily understood by the people, and, although many attempts to change the system were made, they were unsuccessful, and the tax continued in existence for about 300 years, down to the time of the Commonwealth. It must be assumed, of course, that many vicissitudes were encountered during this long period, and that some modifications and changes in the tax took place. Sometimes a particular levy excluded land entirely, and "moveables" (the term usually adopted to denote goods and chattels) had to bear the whole; and in other instances this was reversed; but no lasting alteration in the incidence of the tax occurred to relieve such personal property as then existed of its due share of the burden, although, as it had then, as ever, a marked tendency to slip out of assessment, greater vigilance and strictness had from time to time to be exercised.

But, side by side with the "fifteenths" and "tenths," and supplementary thereto, the well-known "subsidies" were occasionally levied to meet situations of unusual emergency, as at the time of the Spanish Armada. The amount of a full subsidy was then 2s. 8d. in the £ on moveables, and 4s. in the £ on the annual value as profit from land (thus the proportions of a fifteenth and a tenth were preserved). All persons were charged in respect of "moveables" on the value of their money, plate, merchandise, corn, household effects, and money owing to them, with certain exemptions. Thus we see that, under the subsidies, personalty bore its customary share of taxation.

At the time of the Commonwealth the fifteenths and tenths, and the subsidies, came to the end of their prolonged period of existence. Parliament required speedy

replenishment of its funds to meet the expenses of its forces, and a system of "Monthly Assessments," with this end in view, was instituted. The required sum was fixed, and was apportioned, on the basis of the highest return made on the old subsidy, between the various counties and towns; and the assessment and collection was a matter for the duly-appointed local authorities to carry out under prescribed regulations. By the Taxing Act of 1656, £60,000 per month, for three months, was ordained. It was chargeable on "all and every their lands, tenements, " hereditaments, annuities, rents, profits, parks, warrens, " goods, chattels, stocks, merchandises, offices, or any other " real or personal estate whatsoever" at a pound rate on the value of land and real estate, and on an estimated income of 5 per cent. on the capital value of personalty.

In their incidence, the "monthly assessments" do not appear to have differed materially from the previous taxes, except that they were more adapted to the times, and provided the means for a stricter adherence than had hitherto been the case to the principles of assessment laid down.

It will be noted that personal property was charged as hitherto, and its description was very comprehensive. In the case of houses and lands, tenants were required (probably for the first time) to pay the owner's tax thereon, with power to deduct the same on the payment of rent; and, in the case of a deficit in a county or town, a reassessment had to be made. Absentees, except merchants abroad on business, were assessed in a double proportion.

The "monthly assessments" were in use until the Restoration, when a trial of the old subsidy was made, and abandoned as unsatisfactory. The assessments on the old returns were then again tried, but were found very ineffectual; goods and personalty had contrived to slip out of the assessment to such an extent that loud complaints were

made of unequal pressure of the tax on the land, and they were finally condemned and discontinued in 1691.

This led, in 1692, to a new Era in the history of taxation. In that year Parliament passed an Act granting 4s. in the £ for the expense of carrying on a war against France.* It was continued annually, as a pound rate, until 1697, when, owing to evasions in the assessment causing a diminution of the amount required to be raised (as had been the case with the old monthly assessments), the principle of a fixed sum to be paid by the counties and towns was again resorted to. By an Act of Parliament in the same year the sum of £1,484,015 1s. 11 $\frac{3}{4}$ d. was so fixed. It was levied, first upon goods, merchandise, and personal property, on an assumed income calculated at 6 per cent. on their value, and on income from offices and employments, at 3s. in the £; and the residue of the sum by a pound rate on the rent or annual value of real property. Personal property was described as all personal estate whatever within the realm, goods, wares, merchandise, chattels, ready money, and money owing.†

It should be observed that this Act preserved and continued the principle, which had existed for so many centuries, of taxing the income from land and personalty jointly, for the expenses of the State. Upon the foundation of the old fifteenths and subsidies had thus arisen a fresh enactment which preserved their essential features. It ran its course for a century, commencing with personalty and income as a first charge, and the remainder was charged on land. It ended its course in 1798, when it was dissected and *that portion on land made perpetual*, and personal property practically allowed to go free. The small amount of the charge which then remained on personalty was extinguished by statute in 1833. This escape of personalty was the result

* 4 Will. & Mar. c. 1.

† 9 & 10 Will. III., c. 10.

of a gradual system of evasions and frauds entailing injustice upon real property holders, which at length were sanctioned and adopted by Parliament. The levies varied from 4s. to 1s. in the £ during the existence of the tax.

Thus this ancient property tax, which had existed in the before-mentioned different forms, but was for six centuries always dual in its incidence, on land and personalty alike, came to its end, and the modern land tax, which was carved out of it, succeeded it. But, in remembering what MILL and others have said as to the land tax being hereditary, we must remember also the fact that the burden on personalty, which was equally hereditary, was entirely removed from those who had previously borne it.

I have referred to the history of this tax at some length in order to shed the necessary light upon the errors in this theory, but the present incidence of the land tax is so familiar, and has already received so much attention in Mr. EVANS's admirable Paper in the Session of 1882-83, that I need not dwell upon it.

It was evident, however, that the country could not get on without a general tax on property. The way having been cleared by the extinguishment of the old property tax and its conversion into a perpetual land tax, immediate preparations were made for its successor, which was imposed in the next year, 1789.* This was in force three years, and was succeeded by several similar Acts, varying somewhat in detail, the last of which came to an end in 1815. Land and all real property was brought into the assessment again, thus bearing the old burden, and also taking its share, with personalty, in the new one.

An attempt was made, in the earlier of these Acts, to allow a moderate deduction for repairs from the gross rentals of real property. From 1806, however, this privilege was

* 39 Geo. III., c. 13.

withdrawn, because it was said to lead to unfair returns. Having grown wise by familiarity with the success which personalty had achieved by its evasions, the Government of the day thus promptly and effectually nipped in the bud any such mild attempts at fraud as could be facilitated by the continuance of the allowance. It might have been better to be out of the way of temptation, but had the owners of real property no promptings in the matter of "conscience money" like the owners of personalty?

After 1815 the tax disappeared; but was re-imposed, in 1842, in the form in which we now know it. We are all aware what the rules of its assessment were. They operated unfairly upon the owners of real estate, who paid duty upon gross rentals (less land tax, of course), whereas those engaged in trades and professions, and even the occupiers of real estate were allowed to deduct every expense incurred in earning their incomes, and payment was made, in their case, on the net profits. This inequality (now partially relieved) in the incidence of the tax was, in effect, the imposition of an additional charge upon the owners of real property. Mr. GLADSTONE himself, in his budget speech of 1853, estimated it at fully 16 per cent. above the net value, but I think I am within the mark if I put it at an average of 25 per cent. Some relief in this respect has, however, now been given by the Finance Act recently passed (although it is not sufficient to place the tax on land on the same favourable basis as that on trade and other incomes under Schedule D), by allowing a deduction of $12\frac{1}{2}$ per cent. for lands with houses and farm buildings.

From this brief outline of the general Imperial taxation on property, from the earliest times to the present, it will be seen that personal property was, from the year 1187 until 1798, chargeable side by side with real property, under the same ordinances and statutes. At the latter date personalty

became free and the land was charged permanently. And we find that both classes of property, that bearing the burden of the old tax, and that which was made free, were again assessed in common in 1842, and they still remain so under rules and conditions disadvantageous to the land.

This limited survey (which does not include the succession duty, or the new estate duty, which I shall presently allude to) cannot, however, fully indicate the measure of the burden which land has been made to bear. It has always been necessary to provide for national expenditure, and any relief given to one class of property must, of necessity, increase the impositions made upon other classes. The question then arises, whether realty and personalty have either of them been relieved, or otherwise, by the operation of other sources of taxation, and this necessitates a brief reference to the numerous taxes which, from time to time, have been levied side by side with the general taxes on property.

Poll taxes, or taxes on persons, some of which were graduated, were first imposed in 1377, as aids to general taxation, and were continued at intervals until 1698.

In 1759, when it was found that, notwithstanding their increasing ability to pay, the trading classes evaded the payment of the property tax (the remains of which now constitute the present land tax), general dissatisfaction was expressed. A remedy, in the shape of a tax on shops, was then imposed in proportion to their rent. But the shopkeepers were a body strong enough to obtain its repeal three years afterwards, at which time it produced £56,000 a year.

Taxes were from 1782 to 1869 charged on property insured against fire. The hearth tax was charged for some years, and was repealed in 1688; and the window tax existed from 1696 to 1851.

In 1757 a tax on the possession of silver plate was levied yielding £18,000 a year, and it lasted for 20 years; and a tax on property sold by auction, imposed in 1777 and existing until 1845, produced £230,000; nearly £200,000 of which arose from the sale of goods.

Various assessed taxes in respect of private establishments imposed in the 18th century, notably the carriage tax, and those on male and female servants, horses and racehorses, have been either materially reduced or extinguished.

One of the main objects of Parliament, after the new property tax was imposed in 1842, was to establish it as a permanent institution in order to relieve trade. In 1831 the following manufactured articles were taxed:—Candles, soap, paper, printed goods, newspapers, starch, glass, bricks, and tiles. They yielded a total revenue of over five millions, but were liberated one by one (paper being the last in 1861) in pursuance of a steady policy.

Land, being taxed twice over, assisted in providing the means for the repeal of these taxes, as well as the modification of others, and it is not difficult to realise that personalty and trade reaped the greater part of the benefits which accrued.

At the same time we find that material aids to income from land have been abolished, in the interest of the general taxpayer, by the repeal of the duties on corn and other agricultural produce imported.

Corn, as we know, was, for about a century, protected by more or less heavy import duties, until 1849, and the registration fee of 1s. per quarter was abandoned in 1869.

In 1842, taxes on imported cattle, sheep, and pigs were repealed, after being in existence for many years.

A duty on butter imported, which had yielded £257,000, was disposed of in 1860; and one on cheese, producing £117,000, expired also in the same year.

I now come to the taxes on property arising at death. The Succession Duty Act of 1853 charges landed (and personal) property devolving by way of succession from one person to another at death, and the duty is regulated by the degree of relationship, from 1 to 10 per cent. The value of the succession in the case of land was, under this Act, the capitalised value of an annuity based upon the net income of the property, with certain limitations where the succession was only to a limited estate, incumbrances created by the predecessor of course being the subject of deduction. The Finance Act, 1894, has now placed real estate on the same footing as personalty, with certain necessary variations as to valuation and other matters peculiar to realty. The new duty on the aggregation of the two classes of property is called "the Estate Duty," for which purpose and for the succession duty the capital value of the property is substituted for the annuity above-mentioned, and such principal value is to be the price the property would fetch if sold in the open market, except as to agricultural land (without prospective building value), which is not to exceed 25 years' purchase, so that, practically, there is an assimilation of the incidence of duty on realty with that on personalty. In the case, at least, of successors advanced in life, the charge by this alteration in the principle of valuation will be considerably augmented, and so materially lessen the value of their succession. I have no doubt, however, that the Members of the Institution would be very glad of any information as to the general effect of this alteration by a reference to the average number of years owners are in possession, or otherwise, as such information would be interesting and serviceable.

The true significance of the estate duty, so far as it applies to real property, will not be fully apparent until experience has been gained of the actual working of the

new Act, but perhaps those who have had the time and inclination to follow the debates in Parliament, may have gained some idea of the disastrous results which may be anticipated.

It was claimed by the author of the Act that its principle was to equalise the duties on personalty and realty, and that the allocation since 1888 of a portion of the probate duty to local taxation purposes must logically be followed by the equalisation of the death duties on all classes of property, I shall refer to this relief to local taxation presently; but I would here say that the equality is only one in name. It is the *actual incidence* of the estate duty which we have to consider, and the effect it has upon realty. The difficulty of immediately providing for its payment (even by the instalments allowed) in the case of landed estates, as compared with personalty, will constitute a great hardship. The duty will apply to houses which yield no income, and no account is taken of the many unavoidable outgoings required at the hands of owners of property, whether resident or otherwise, for the benefit of the district and those residing in it. One of the duties of an owner of land, an obligation which he owes to the community at large, is to use his best endeavours to improve his property for the general good of the country, but the prospect of the accustomed outlay for this purpose will now, in many instances, be cut off, and the burden borne by those who have to keep up ancestral homes will likewise become too heavy to bear.

I believe most authorities are agreed that systems of taxation which can be evaded by some taxpayers to the detriment of others, are to be condemned; and there is a means of escape for personalty by its distribution before death, which of necessity is almost entirely absent in the case of land. This, in my opinion, is one of the greatest evils to be feared, but there of course remain other points of

inequality. Some of these were referred to in the debates on the measure, and no doubt many more will become apparent as time goes on. If this Act is intended to equalise the incidence of taxation all round, it is a failure. It is now imperative that the glaring inequalities in local rating should be inquired into, and that some form of relief in respect of the land tax should be asked for.

The method of valuation of property for the estate duty is also open to the same objection as that which has been referred to in the case of the new provisions for the succession duty.

The introduction of the principle of graduation, from 1 to 8 per cent. in the rate of duty, which the CHANCELLOR OF THE EXCHEQUER said was the "corner stone" of the Budget, is a new departure of much importance to the owners not only of real, but of all classes of personal property. It discourages the habit of saving, and the principle is condemned by MILL as applied to property tax, which is certainly analogous. He says that "to tax the "larger incomes at a higher percentage than the smaller is "to lay a tax on industry and economy; to impose a penalty "on people for having worked harder and saved more than "their neighbours." Those who are staunch supporters of his theory of the hereditary nature of the land tax, and of the old rates, have in this case, for their own ends, disregarded his teaching.

The effect of the estate duty upon inheritors of landed property has been estimated by a statesman of high repute to be the absorption of five years' income from their estates. This may, in some cases perhaps, prove to be somewhere near the mark, although it is probably more or less a speculation.

But it may be serviceable to work out a possible case by way of illustrating the general effect of the duty. Assuming

that a person bought an estate of 10,000 acres ten years ago for £250,000, and that he desired to sell it now, its value would be lessened by the amount of the new duty, which must, of course, be taken into account, together with any other causes which have intervened to influence the value of the estate. The duty, by the scale, at 7 per cent. would be £17,500, and this represents the slice which is now cut off a property which may have been acquired by the savings of a hard-working career, either of the purchaser or his predecessor. Or, suppose the purchaser retains the estate, and wishes to provide for the payment of the duty at his death by means of an insurance policy, this would cost him, assuming his age to be 50, at the rate of 4 per cent. on the £17,500, the amount of £700 a year, which is equal to a tax of 1s. 4½d. per acre annually during his lifetime.

This is calculated from the tables prepared for the purpose by a leading life assurance society, and it is no mean sum to be taken annually, by a simple legislative enactment, from a person's income. If the £700 a year premium was capitalised at 3 per cent. £23,300 would be required, which is nearly one-tenth of the cost of the property purchased.

In the case of property settled by will there is a further duty of 1 per cent. called the "Settlement Estate Duty," and to shew the effect of this addition there would have to be added one-seventh to these figures.

Future purchasers of land will therefore seek to acquire it at a price reduced by the equivalent to the duty now imposed, and the present owners will alone bear the burden, as they would have parted with it at a less price equal to the fee simple of the duty.

THE CHANCELLOR OF THE EXCHEQUER is stated to have expressed himself in favour of the insurance principle for

providing for the payment of the duties. No doubt he worked out a similar example to the above, and, viewing the result with complacency, wondered after all how he could have been so merciful to the landed interest.

In the question of local taxation we have the same formula of heredity to answer as in the case of the land tax. The most important modern contributions to the literature of the subject are Mr. GOSCHEN's Report on Local Taxation, of 1871, and the recently published Report of Mr. FOWLER bringing it up to date. These are written from one point of view, and Mr. DUDLEY BAXTER's work on "Local Government and Taxation," and the Reports of the "Local Taxation Committee," of which Sir RICHARD PAGET is Chairman, are written from the other. One stands almost aghast at the multitude of elaborate tables contained in these Government Reports, and I propose altogether to avoid a reference to these, as they are scarcely needed for a limited inquiry, such as this, into the *principles* of taxation. Statistics, unfortunately, can be so manipulated in the hands of clever special pleaders as to deceive their opponents; and competent critics like the two last-mentioned gentlemen have not been slow to prove that this has been the case with the Reports referred to.

The theory of heredity, as applied to local taxation, must be considered side by side with the Statutes themselves, and, as regards the actual incidence of the rates, it will be sufficient to take the case of a representative agricultural ratepayer as a unit, and any inequality or injustice which exists, on comparison with other ratepayers, will naturally indicate the proportion of the same in the aggregate. Apparently there is not much need for taking into account the comparisons which have been made of the burdens on our own land, with those on that of other nations, as other conditions exist rendering a just com-

parison impossible. The produce of land in this country has long ceased to be protected by import duties, while that of other countries has been artificially raised in value by the imposition of those duties, and it is therefore better able to bear the burden of taxation. This of itself is a strong answer to those who, like Mr. GOSCHEN and Mr. FOWLER, make the comparison, and raise inferences favourable to their own views. This point, however, has been subjected to detailed criticism by Mr. BAXTER and Sir RICHARD PAGET.

In the Local Taxation Reports the poor rate is dissected. The rate for the Relief of the poor, the County rate, the Church rate, and the Highway rates, the Report says, "constitute an hereditary burden on real property, subject "to which land has been bought and sold, and inherited, "during a long series of years." But what importance can be attached to a statement so utterly one-sided as this, which suppresses the fact that, from the first imposition of a rate for the relief of the poor, personal property bore a similar burden, and changed hands likewise while accumulating enormously, until (as in the case of the land tax) it escaped by evasions and frauds, and was finally exempted by the legislature? This doctrine has been exposed, as it deserves to be, in the Special Report, in 1893, of the Local Taxation Committee.

If rural taxpayers are prepared to accept Mr. FOWLER'S views, they may soon find that the composite levy, made under the name of the poor rate, will be dissected for a more practical purpose (as the old property tax was in 1798), and the part now chargeable on land made perpetual. The way will then be clear for a fresh start with a general rate, in which land shall take its share again. Mr. FOWLER, no doubt, realises the fact that new charges cannot be continually put upon the rates, from which the

land receives no benefit, without serious opposition. We may infer that he will divide the burden in two, the old and the new; the old being labelled "hereditary" and put upon land, and we shall be told (as, indeed, we are already) that this is no burden at all. This is the logical outcome, having regard to previous experience with the land tax, of this application of the theory of heredity in respect of local taxation on real property; and we may soon, I fear, be told that such a scheme is within the range of "practical politics."

But we must turn to the statutes for light on the subject. The whole of the rates which we are accustomed to refer to briefly as "the Poor rates," are levied under a series of Acts of Parliament, based upon certain main principles laid down in the important Poor Law Act of ELIZABETH, with the very material exception that personal property has slipped out of assessment. Previous to this Act there had been minor attempts at similar legislation, owing, apparently, to the dissolution of the monasteries having been the means of drying up the sources of relief to the needy. The Act of ELIZABETH* provides that the churchwardens of every parish shall "raise, weekly or " otherwise, by taxation of every *inhabitant*, parson, vicar, " and other; and of every occupier of lands, houses, tithes " impropriate, propriations of tithes, coal mines, or saleable " underwoods, in the said parish, such competent sum " or sums of money as they shall think fit," and further, that this is "to be gathered out of the same parish *according to the ability of the same parish.*"

Mr. TOULMIN SMITH states that this statute intended "that all property within the parish, the use or fruit of " which was enjoyed, should be taxed. Stock-in-trade, for " instance, ought to be thus rated, this being a simple

* 43 Eliz. c. 2.

“and obvious test of the *ability* of each to contribute.” * Again, Mr. CASTLE says:—“The Act of ELIZABETH refers “to personal as well as to real property; but either from “the difficulty of assessing personal property, or from the “*still popular principle of throwing all burdens upon land*, “a custom sprang up in many parishes of not assessing “this class of property. All personal property is now “declared by statute to be not rateable. With this exception the Act of ELIZABETH remains untouched in “principle at the present time.” † It was not, however, until 1840 that an Act was passed (like the similar Act of 1837 in respect of the Land tax) to exempt stock-in-trade from assessment to the rate; and by annual Acts this exemption, as we know, has been continued.

Thus, from the first imposition of the poor rate in 1601, until 1840, personal property, in addition to real property, was by law chargeable to the local rates; and from being a partly *personal tax*, which taxed “*every inhabitant*,” as well as every occupier, it became purely an occupier’s tax.

In providing that persons should pay according to their means towards the maintenance of the poor, the practice which, in the time of ELIZABETH had long existed in respect of the imperial taxation of “moveable” property, by the tenths and fifteenths, was no doubt followed as a precedent.

In view of the evidence afforded by the Statutes themselves, which shews that there was no difference between real and personal property as regards their liability, for four-fifths of the time the poor rate has existed, it is much to be regretted that one-sided arguments should have been

* “*The Parish. Its powers and obligations at law.*” By TOULMIN SMITH, Barrister-at-Law. 1857.

† “*The Law of Rating.*” By E. J. CASTLE, Barrister-at-Law.

put before the country; and there can be no doubt that, if personal property had been always "in evidence," like real property, and as easy to distrain upon, it would have contributed its share to this day.*

It remains now to review the incidence of the local taxes as it operates upon different classes of taxpayers. Had we been living in the time of ELIZABETH with the present enormous accumulation of personal wealth, and with the large industrial incomes now earned, there is little doubt that Parliament would then have made a more direct reference, than it did, to *income* as an important source of "ability" to pay. But ability to bear taxation is no longer the test. The tax is not on profits; it is based upon the letting value of the lands or houses we occupy, which is no test whatever of the means to bear the tax, or of the proportion of comfort, security, or service an individual taxpayer receives out of the common fund to which he contributes. On the contrary, the system is pregnant with absurd anomalies and inequalities. For instance, farming incomes are assessed at more than *double their value* for poor rate purposes, the Imperial authorities now estimating such incomes at three-eighths of the rent of the farms; whereas industrial and personal incomes are assessed at *from a fourth to a third part only of their value*.

In addition to the "old rates" previously mentioned, *i.e.*, the poor, county, and highway rates, there are the new impositions for Sanitary and School Board purposes. The average of the old rates was 1s. 11d., and of the new 4d., in the £ for England and Wales in 1891, being a total of 2s. 3d. The School Board rates, however, are very un-

* The fact that there was a real taxation of personal property, and shipping also, was made clear by the remarks, supported by quotations from old rate books, of Major CRAIGIE, at a discussion on Mr. W. MATTHEWS's Paper on "The Taxation of Property," at this Institution. "Transactions," vol. xviii., pp. 345-353.

equal, some counties being almost entirely free, while in several instances in Wales they are 5*d.*, 6*d.*, and 7*d.* in the £. This shews a marked objection to the voluntary system in the Principality, though, of course, some allowance must be made for the inability to maintain schools by voluntary means where these are limited.

Occupiers of land are assessed to the poor rate upon their rents, less the statutory abatement for repairs and insurance (taken in the union in which I reside at $7\frac{1}{2}$ per cent. for farms) allowed on all classes of property. Thus the occupier of a tithe-free farm rented at £600 would be rated at £555. His contribution at 2*s.* 3*d.* in the £ would be £62. A professional man or tradesman earning a similar income would be assessed upon his house and premises only, say at £40 a year, and pay £4 10*s.* to the rates.

It might be supposed from this extreme violation of the principle of equality (which should exist in every rate, as without it the word "rate" itself is meaningless) that the occupier of land had a certain beneficial monopoly in the use of the matters and things purchased by the common fund that he contributes to. If such monopoly exists I am unable to discover it. The use of the highways is probably the only debateable point, but they are a matter more of Imperial concern.

But it is stated that the inequality is only imaginary, because some portion, at least, of the rates on land are hereditary. I shall reach this point again presently; but I may suggest here that it would be interesting to know how many years it will take to convert the new Sanitary and School Board rates into permanent and inherited charges? If a working scale was laid down it would be of material service for similar calculations, which it seems necessary to make, upon the further burdens in view. There is already the new Estate duty, and the risks to be undertaken under the



Acts for facilitating the acquisition of land and allotments for the working classes, and the new expenditure arising under the Local Government Act, 1894.

The incidence of the Sanitary rate, which operates on land when a special improvement district is formed, is particularly oppressive, although the land comprised within the special district is only charged on one-fourth of its rateable value. It is the height of injustice to rate land, as is sometimes done, two or three miles away from the sewerage scheme of these districts, for the benefits reaped by the householders alone. As farmers' incomes are rated eight times as high as those of trading and industrial householders, farmers really contribute twice as much of the cost of such undertakings as the householders themselves.

I have thus endeavoured to make clear the reasons why I consider the incidence of taxation on land, Imperial and local, is unequal and unfair to a very material extent. Taken collectively the annual average taxes on land may be estimated thus :—

			<i>s.</i>	<i>d.</i>	
Land tax-	-	-	at	0	8 (estimated).
Property tax, Sch. A			„	0	8 (present rate).
„ „ „ B			„	0	3 „
Poor rate	-	-	„	2	3 (general average).
Total in the £	-			3	10

Is there any reason for supposing that this burden, now augmented by the unequal incidence of the new estate duty, deters capitalists, thrifty tradesmen, wage-earners, and others from investing their money in land? A comparison with the taxes borne by different classes of incomes in rural unions may indicate the answer.

A and B each inherit, or acquire, £6,000. A buys a

farm of 200 acres, at £25 per acre, for £5,000, and invests the remaining £1,000 in stocking it. He enters upon a risky and by no means prosperous occupation, and his payments for taxes (assuming that the estimated rent was £200 a year) would be :—

	£	s.	d.
Land tax, £200 at 8 <i>d.</i> - -	6	13	4
Property tax, Sch. A, less new abatment of 12½ per cent., £168 at 8 <i>d.</i> - - -	5	12	0
Sch. B, £200 at 3 <i>d.</i> - -	2	10	0
Poor rate, £185 at 2 <i>s.</i> 3 <i>d.</i> -	20	16	3
	35	11	7
Less abatment of property tax, the income being under £400	5	6	8
Total - - -	£30	4	11

His income as owner would be the rent of £200, and as tenant (estimated according to property tax rules), say £75; total, £275. The payment of £30 4*s.* 11*d.* for taxes out of this income would be at the rate of 11 per cent.

B, preferring less risk, and a smaller, but certain, income, invests his £6,000 in the funds, which, at 2¼ per cent., yields him £165 a year. He would pay for taxes :—

	£	s.	d.
Property tax, Sch. D (less abate- ment of £160, the income being under £400), £5 at 8 <i>d.</i>	0	3	4
Poor rate on his house, say £18 at 2 <i>s.</i> 3 <i>d.</i> - - -	2	0	6
Total - - -	£2	3	10

which is 1¼ per cent. only on his income.

A farmer who pays a rent of £200 a year makes a profit estimated at £75 a year. If the farm was tithe free he would be rated at about £180, which, at 2s. 3d. in the £, would be £20 5s. This would be 26 per cent. of his income, which is free of income tax.

A rural shopkeeper or tradesman, earning a profit of £75 a year, would occupy a house and premises, say, at £24 a year, and he would be rated at £20. This, at 2s. 3d. in the £, would be £2 5s., or 3 per cent. only on his income, which is also free of income tax.

The result of these examples is sufficient to shew that the man who invests his capital in land, and takes the risks which unfortunately now exist (particularly with the inexperienced), is taxed eight times as much as the other who retains his personalty, and the tenant farmer is taxed eight times as much as the tradesman, while all enjoy the same State protection, and the same local services and conveniences as are provided out of the common fund to which they contribute in such unequal proportions.

The popular idea is now to attract persons to the land, and the State is assisting this object by means of special legislation. But no one need be surprised that, under the operation of these fiscal anomalies, land is not sought after as an investment; or at the want of success of the legislative facilities provided; or at the recent indications in the debates of Parliament that working men do not want to become owners, but prefer (if they approach the land at all) to become tenants. And there is reason to apprehend that the unequal pressure of the burden has materially contributed to the decay and disappearance of the old race of yeomen owners, a circumstance which it is customary now to deplore.

The Parliamentary grants in aid of local rates, which, since 1888, have been largely increased by the transfer to the local authorities of certain local and excise duties, and

of a share of the Probate duties (to be continued by provision made in the Finance Act), must enter into the account. In 1892 the sum so transferred from Imperial sources amounted, together with the previous Treasury subventions and the new fee grant to elementary schools, to £11,846,000.

But these grants, though of material service to local exchequers as a whole, and freely spoken of as applied for the sole benefit of land, do not remedy the inequalities which exist between different ratepayers under the present rules of assessment. They are presumed to cover certain local expenditure for purposes which are, more or less, of Imperial concern. The revenue, however, from which this relief issues, is, of itself, raised under the operation of the unfair principles which I have pointed out, and the recipients who are eased thereby in the amount of their local contributions are *all* relieved, although the personal and industrial incomes are shewn to bear much less than their fair share of local burdens, and do not require the relief so much. Moreover, the benefit supposed to accrue to the local ratepayer is more apparent than real. Can it, in fairness, be asserted that the proportion of these grants which is applied to technical education relieves the rates? What benefit has the ratepayer received from that portion of the aid which is applied to elementary schools for fee grants? As a rule this money has found its way (like a gift) into the pockets of the parents who can scarcely be said to contribute to the rates at all, and who, in many instances, were not in want of such charitable relief. And the ratepayers, mainly the landowners in rural districts, all over the country (in order to avoid school boards) have had to provide large additional voluntary contributions, to defray the extra expenditure which had to be incurred, as soon as the fee grant was given, to meet the new and stringent

demands of the Education Department for improvements to school buildings, which, in the majority of cases (within my knowledge at least) could have been well dispensed with in a time like this of diminished incomes. I can vouch for the fact of £600 having been so contributed by the owner of one estate. The Imperial source and local effect of these Parliamentary grants in aid to local taxation may be compared, so far as they apply to incomes from land, to the case of a too-confiding patient who allowed his doctor to bleed him too freely in the morning, and found it necessary, in the evening, to summon the aid of the nearest "quack" to prevent his collapse.

A point that has frequently arisen in discussions upon the incidence of rating is that rates are a charge upon ownership, not upon occupation, the effect being that any relief which is given to occupiers goes to the owners. As an abstract principle, the preponderance of opinion (with which I agree) of Members of this Institution, as revealed by the "Transactions," is that *ultimately* the rates do fall upon the owner. But what occurs in actual practice? We find that alterations in local impositions, whether by way of increase or relief, usually take a number of years before they operate upon the owner. In leases of years this is so, and landlords and tenants are both accustomed (fortunately for agents) to submit to these alterations for indefinite periods before they reopen all the conditions of a tenancy to obtain a readjustment in accordance with the modifications of fiscal burdens. When owners are receiving high rents under a competition for farms, the tenant practically bears the payment for rates, and the reverse is the case when the demand is slack and rents are low.

But if equity is considered, it should make no difference who bears the rates. If the principles under which they are levied are unjust, a remedy should be applied.

One of the worst features of the present system is that no person can spend money in improving the value of his land (the produce from which certain theorists tell us ought to be doubled throughout the realm by the application of additional capital) without paying 3s. 10*d.* for rates and taxes for every pound of improved annual value; and the effect of this tax on improvements, which is now supplemented by the heavy duties under the Finance Act,¹ is that it goes to the common fund to ease the burdens of other classes who are, relatively speaking, too lightly taxed already.

Under our present industrial conditions, and with the land of the whole world to compete with, the soil of this country may fairly be placed alongside the list of raw materials, which the State has long since ceased to tax direct. The amount of taxation now borne by land, in excess of its proper share, is the measure of a direct tax borne by it as a raw material. But those who cannot accept this proposition may perhaps prefer to compare the soil to the plant or machinery used in the production of manufactured articles. It is, at least, akin to one or the other. But do we tax machinery? I am not so familiar with the details of the custom (where it exists) of doing this, as the rating experts we have among us; but I know that a system has been established in some places, though it is not general, for bringing a portion of machinery into the poor-rate assessment, and we are all aware of the strenuous opposition to the principle, which has resulted in the recent introduction in Parliament of a Bill to exempt it from rating. But, although I have made this incidental comparison of soil with machinery to illustrate a principle, it must not be inferred that where the latter has now, in certain places, to contribute something to the cost of the rates, it bears more than a slight proportion to what the

former contributes. If a manufacturer who produces his wares by capital and machinery, applied as a motor, is not assessed for that machinery, why should a manufacturer who produces corn and beef, by the use of capital and land as a motor, be assessed for the land? The State accords protection to the property alike of each individual, and the local authorities render the same services.

I believe the statements I have made are more than sufficient to shew (if proof were needed) that a remedy is required for adjusting the inequalities which exist under the present law. The subject is, of necessity, more or less familiar in its various aspects to all surveyors, and most of them have, no doubt, already arrived at a judgment upon it. Those who differ from me in my conclusions will, I think, at least agree in my anticipation that the present state of dissatisfaction will, or at all events ought, to lead to an authoritative inquiry. The situation demands this, and I trust it may not be long delayed. The doctrine that burdens on land, when they become old, are hereditary and cease to be burdens, which has been devised and taught with some appearance of success by leading members of Parliament and others, has to be met, and refuted. It is almost their sole weapon for contending against the shortcomings of the present system. It is utterly beside the question to produce statistics to shew that rates are not so high now as they were at the earlier part of the century when bad administration led to great abuses; or that rates are higher in the urban than in rural districts. Farmers, unlike urban dwellers, do not have their streets or roads swept up, their ashbins emptied, or their water laid on and sewage carried away.

As it is very important to expose such fallacies, I hope I may be allowed to dwell for a few moments more upon

this, which after all is the rallying point of the controversy. If old systems of taxation on land lead in time to their becoming fixed or hereditary burdens on that particular class of property, why should not the same principle be extended to "moveable" property, which for many centuries was jointly with land taxed for Imperial purposes, and, for a very long time, for local purposes? It was an act of injustice when the legislature put an end to this, and it remains so, in a greater degree, to this day. MILL reproaches a country which perpetuates a wrong of this kind by saying, "reasons for not disturbing acts of injustice of old date, cannot apply to unjust systems and institutions, since a bad law or usage is not one bad act in the remote past, but a perpetual repetition of bad acts as long as the usage lasts." *

One source of Imperial revenue is now charged permanently and exclusively upon land, to the detriment of those who live upon it, and to the benefit of the others who do not, because it is an ancient charge. If this is just, would it not be just also to apply the theory conversely, and ask that the large revenue collected for a century from the other classes by the imposition of duties on corn, cattle, butter, and cheese, for the benefit of land, should be re-instated, and made perpetual likewise?

In his Report Mr. FOWLER, referring to the recent Imperial grants, states that the effect has simply been to transfer a part of the hereditary (*i.e.*, local) burden on real property to the Imperial revenue. We may take this, perhaps, as another indication that the process of dissecting the old general tax on property, which resulted in the imposition of the present land tax, will be applied, for local taxation purposes, to the old charges under poor rate. This seems to be

* "Polit. Econ.," book ii., chap 2, s. 2.

the only conclusion to be arrived at from the continued harping upon the one string of hereditary burdens; and a more erroneous or mischievous theory can scarcely be conceived. If it should be adopted, a limit of time from the imposition of every fresh charge must be assigned to fix the date of its attaining its majority and becoming a settled institution. Accounts must then be made up, the permanent charge fixed, and thus the ground will be cleared from time to time, and a new start made with the whole of the old burden put upon land as well as a share of the new. Or, may we assume that a proportion of the charges as they mature will be put upon houses, and some on personalty, as it would be unfair to single out the land alone for such treatment?

How utterly absurd and impracticable this is. But, if the principle be once accepted that land is lightly rated because it has changed hands for so long a time with a poor rate attached to it, it must be made to apply in the case of other property, and be otherwise extended in its application. Surely, we ought to hear no more of it. But popular prejudices live long and die hard, and I am tempted to support the opinions which I have ventured to submit to you by quoting some remarks upon the subject made by the late Mr. DUDLEY BAXTER, in the work that I have mentioned.

He says that :—

“ Every kind of income is less valuable on account of taxes. If a business is sold, it is sold on the net income; if inherited, it is inherited subject to prescriptive taxes; if newly made, its gains are earned subject to the obligation of paying the same taxes in return for the protection of the State. These taxes are prescriptive burdens on the income, and, on a logical application of Mr. MILL’s theory, are just as much the prescriptive property of the

“ State as market dues are the prescriptive property of a
 “ market-owning Corporation.

“ Hence, logically and impartially carried out, Mr.
 “ MILL’s theory of prescriptive burdens applies to every kind
 “ of property and income, and not to real property only.
 “ It cannot be applied to real property only and ignored as
 “ regards realised personalty and personal incomes.

“ Taxes are in their nature distinct and different from
 “ property. The State says to a taxpayer, ‘ So long as the
 “ ‘ Legislature continues the obligation, you shall pay
 “ ‘ towards the public service a certain portion of your
 “ ‘ property or income.’ The State reserves the power to
 “ grant, and the taxpayer the right to ask, relief from the
 “ tax whenever it can be proved that the public service
 “ or justice to the taxpayer no longer require it. A tax is
 “ essentially recoverable and revocable. There is always
 “ a residuary estate vested in the taxpayer. To claim this
 “ residue as the property of the State is a violation of the
 “ conditions of its impositions.” *

The agricultural industry is declining in prosperity most seriously. Incomes of owners have, in many instances, reached a point which forces them to become absentees, and they will suffer still more by the new estate duty; farmers have lost a very large amount of capital, and many are living a hand-to-mouth existence; labourers are employed intermittently instead of regularly, and are spreading distress in the towns they have migrated to. This is already too well known, but I refer to it incidentally only to shew that the land, on which the existing burdens of taxation already press too heavily, is not in a condition to bear fresh impositions of which other property will reap the benefit.

* “ Local Government and Taxation.” By R. DUDLEY BAXTER, M.A. Lond. 1874.

In conclusion, I submit that, in view of the new charges that are from time to time being placed upon the rates, to which land contributes unequally and unfairly by the operation of old and unsuitable methods of assessment, and in view of the injustice wrought by the new estate duty, a Government inquiry into the incidence of taxation is necessary, and that remedial legislation should follow.*

To discuss the nature of the remedies required would absorb the limits of another Paper. I will merely suggest that income, whether from capital invested or earned by industry, should by some means and to some fair extent be reached and brought into the account for local expenditure. As this is done for Imperial purposes it cannot be impracticable.

I will throw out a crude suggestion for what it is worth. It occurs to me that a material advance on the road to equitable adjustment could be brought about by extending the operation of the existing principle of charging land on one-fourth of its value in special sanitary districts. It will be admitted that an occupier of land is now assessed at twice his income, while occupiers of houses are assessed at from a fourth to an eighth only. A rating by fractional parts and multiples of annual values would be easily workable. If the fairly estimated income of a farmer is half his rent he should be assessed at the half; if the income of professional men, tradesmen, and others can be approximately estimated by

* In the PRESIDENT'S Address, last Session, of the Incorporated Law Society, Mr. MORRELL said:—"But no one can reasonably doubt that the incidence of taxation on real property, accumulated gradually through a long course of years, requires careful and detailed consideration at the hands of the Royal Commission. The present system, charging so much on land, which it can ill afford to pay, and from which it often gets but little requital and return, and so little on the now immense personal income of the community, is both illogical and unjust."

the style of house or size of premises they occupy, at five times the rent of it, they might be charged accordingly.

The late Mr. RYDE was of opinion that the cost of the highways and education should be taken over entirely by the State, and I anticipate that many of us will agree with him. I think that, in any event, these charges should be eliminated from the local accounts. The Government have already partly accepted the principle by the grant of subventions on account, and, as these aids extend to the taxpayers who do not need the relief as much as others do, there is an additional need for such a transfer.

In addressing you on a question which, of necessity, cannot be dealt with except by references to Acts of Parliament, from beginning to end, I have felt at some considerable disadvantage from the want of a legal experience, but I have endeavoured, so far as my ability served, to throw some additional light upon a subject which all will agree is very much in need of it. My remarks upon the provisions of the new Finance Act have necessarily been brief, but I think you will agree with me that this part of the subject, owing to its importance, requires to be treated in a separate Paper at some convenient opportunity, when its results are more apparent.

Mr. HOWARD MARTIN (Fellow) said he was sure he should be giving expression to the unanimous feeling of the Members present in moving that a very hearty vote of thanks be given to Mr. DUDLEY CLARKE for his able Paper. The author had included in his Paper a mass of most valuable information on an exceedingly complicated subject—one just now of peculiar interest,—and had put forward some very useful suggestions and practical examples of the inequalities of the present system of taxation, and a cordial vote of

thanks was certainly due to him for the learning and labour he had bestowed upon the subject.

With regard to the argument that land and other taxes are an hereditary burden, because a man who bought or inherited land acquired it subject to such burdens. Every member of the community ought to expect to pay some proportion of the cost of maintaining those necessary organisations which alone rendered civilised life possible; but it was equally to be expected that everyone should provide himself and his family with food and should keep his house in repair; surely one was no more an hereditary burden than the other. It appeared that land, by long custom, had borne much more than its share of contribution to taxation; but it made the injustice no less to call it hereditary. He saw no reason for regarding land tax as an hereditary burden rather than any other tax. It was true there was a fixed *quota* of land tax payable in every parish, but the assessment of individual properties ought to vary in each parish. If one man improved his property he lightened the burden on the others. For instance, in a parish containing agricultural land and residential property, of which part had depreciated, while the other had increased in value, the land tax would be increased on one and reduced on the other. It only formed part of the general fund for providing for the national expenditure contributed to by all taxpayers.

He could hardly agree with Mr. DUDLEY CLARKE in his suggestion that the cost of education should be borne by the State. He thought that those persons who have the control of the expenditure should contribute towards it. This was not now always the case, as working men contribute practically nothing to local taxation, while their votes completely control School Board expenditure. There was a very general movement now among politicians of all parties

towards enabling working men to buy houses for their own occupation by lending money out of the public funds. If this principle were carried out to any large extent, the working classes would feel the burden of expenditure out of the rates, which they would have to pay, whereas they will never now be made to contribute to Imperial taxation.

MR. J. H. SABIN (Professional Associate) said he had very great pleasure in seconding the vote of thanks proposed by Mr. HOWARD MARTIN. It was, he felt sure, impossible to do justice to such a Paper as Mr. CLARKE's by entering on a discussion of its many points in the short time available on that evening, and he would content himself by expressing the pleasure, in which he was sure all the Members present had shared, with which he had listened to the reading of so lucid a Paper on such a difficult subject.

He thought that Mr. DUDLEY CLARKE had himself answered the objection which the last speaker had raised with regard to the want of contribution to the taxes on the part of the working man, for in his Paper he had quoted, from Mr. BAXTER, a passage to the effect that every kind of income was "less valuable on account of taxes"; and he apprehended that "every kind of income" included the income of the working man as well as others.

With regard to the land tax, he thought that anyone acquainted with its incidence would admit that a remedy for some of its most serious inequalities was necessary; but whether such a remedy would ever be applied was quite another matter.

Everyone felt that he paid too much in the way of rates and taxes, whether he were a farmer, a householder, a professional man, or occupying any other particular position,

and that it was the duty of the State to remedy inequalities as far as was practicable, even if the attainment of ideal justice was impossible.

The vote of thanks having been put and carried unanimously, the discussion was adjourned to Monday, December 10th.

PAPER ON
THE BURDENS ON REAL PROPERTY
AND LAND.

BY WILLIAM STURGE (PAST-PRESIDENT).

*Read at the Ordinary General Meeting of THE SURVEYORS'
INSTITUTION, Monday, December 10th, 1894.*

DANIEL WATNEY (VICE-PRESIDENT) IN THE CHAIR.

I PROPOSE in this Paper to pass under review the question of the "Burdens on Land," or, rather, in its more extended sense, the burden of taxation on real property as distinguished from personalty. The subject is not new, having been treated of by many writers, from ADAM SMITH, in his "Wealth of Nations," down to the present time; and having been frequently discussed in Parliament, I do not suppose that I shall be able to throw much, if any, new light upon this interesting topic. My object, rather, is to present such a condensed and summary view of the question in all its bearings as may lie within the scope of a Paper to be read at one of the ordinary Meetings of The Surveyors' Institution; and may afterwards be placed on record in our "Transactions," with the view of assisting our numerous Fellows and Associates in obtaining information and forming a correct judgment upon it. The inquiry is of special importance at the present time, when the Legislature has taken a new departure, and laid upon real property a very heavy and serious additional burden in the face of severe and increasing depression on that large proportion of real estate which consists of agricultural land.

It may, perhaps, be interesting, and not without some bearing on the general question, to pass in rapid review the incidents of the feudal tenure of land, instituted by WILLIAM the Conqueror shortly after the Norman Conquest in 1066. As is well known, WILLIAM dispossessed the conquered Saxons of their estates, appropriated upwards of twelve hundred manors to himself, and apportioned the remainder at his arbitrary will among his followers, reserving to himself certain seignorial rights, the most important of which was that known as military, or knight, service. Every tenant of the Crown was bound, whenever the King went to war, to furnish an armed soldier, and to maintain him in the field for forty days for each "knight's fee" that he possessed. The whole kingdom, according to Domesday Book, contained 60,215 such fees. The burden which it imposed upon the tenants of the Crown was afterwards commuted by HENRY II. into a money payment of 20*s.* for each knight's fee, which was called an *escutage*, or *scutage*; that is, literally, a tax for furnishing a soldier armed with a shield.

Other important and galling incidents of feudal tenure continued in force from the Conquest to the beginning of the reign of CHARLES II. These are briefly described by MACAULAY in Vol. I. of his *History of England*, as follows:—
 "The military tenure of land had been originally created as
 "a means of national defence. But in the course of ages
 "whatever was useful in the institution had disappeared,
 "and nothing was left but ceremonies and grievances. A
 "landed proprietor who held an estate under the Crown
 "by knight service (and it was thus that most of the soil of
 "England was held) had to pay a large fine on coming to
 "his property. He could not alienate one acre without
 "purchasing a license. When he died, if his domains
 "descended to an infant, the sovereign was guardian, and

“ was not only entitled to great part of the rents during
 “ the minority, but could require the ward, under heavy
 “ penalties, to marry any person of suitable rank. The
 “ chief bait which attracted a needy sycophant to the
 “ court was the hope of obtaining, as the reward of servility
 “ and flattery, a royal letter to an heiress.”

When it is borne in mind that all these impositions were assessed in the King's Court of Wards and Liveries by purveyors appointed by the Crown, there can be no doubt that the pecuniary fines were too often exorbitant, and that the “ pound of flesh ” was exacted.

An attempt was made in the reign of JAMES I. to commute these galling burthens, and CHARLES I., at the Treaty of Newport, had consented to surrender them for a fixed revenue of £100,000; but this was not carried into effect until 1656, during the Commonwealth, when an Act was passed abolishing the Court of Wards and Liveries, and the incidents of feudal tenure. This Act became null and void at the Restoration, but very soon after the question was revived, and by the Act 12 CAR. II., cap. 24, the Court of Wards and Liveries was abolished, together with all the incidents of feudal tenure, and the title of all lands held on knight service was converted into common socage. Two schemes were suggested from which the commutation revenue should be derived; the one a permanent land tax on all lands held in chivalry; the other an excise on beer and some other liquors. The former was clearly the more just, as landowners were those who suffered from the obnoxious payments; but the latter was adopted by the House of Commons by a majority of only two votes. It is, however, fair to add that this excise was one moiety only of what was already paid by virtue of ordinances under the Commonwealth. Thus these liabilities “ *ratione tenuræ* ” of land were for ever abolished.

It would appear that from an early period the revenue was largely derived from what were called "subsides" levied not at regular periods, but from time to time as occasion required. These imposts were levied at the rate of 4s. in the £ on lands on a valuation made in the reign of EDWARD III., and at 2s. 8d. in the £ on personalty. Under the Commonwealth the assessment was a fixed sum of £1,200,000, distributed among the counties in proportion to their supposed wealth, and levied within each county by a rate. The assessment was made both on real and personal property; but the amount derived from the latter was probably but a small part of the whole. Subsides continued to be voted during the reign of CHARLES II., and were similar in substance, though not in form, to the existing land tax.

This impost in its present form was first levied in the reign of WILLIAM and MARY in 1692, under the Statute 4 WILLIAM III., cap. 1, and was levied at the rate of 4s. in the £ on all real property and hereditaments on a revaluation, and also on personalty so far as it was capable of estimation. The quota based on that valuation to be paid by each town, parish, or other separate district, as the case may be, has continued in force (minus redemption, of which more hereafter) to the present day. This arrangement bears very unfairly on those numerous parishes which continue to be, as they then were, purely agricultural, and on which the present assessment varies from 6d. to 1s. in the £; whilst in districts which have since grown from mere villages and small towns into great cities, the amount assessed is merely nominal—less than 1d. in the £. The total amount raised on the valuation of 1692, at the rate of 4s. in the £, was rather less than two millions; indicating an estimated annual value, including personalty, of ten millions. The total amount of property in England and

Wales assessed to the poor in the financial year 1889-90 was, in round figures, 152 millions. If, therefore, there had been no redemptions, a rate of 3*d.* 2/10ths would now produce the sum of two millions, raised at the rate of 4*s.* in the £ in 1692; and if the enormous value of the personalty of the present day were assessed, the poundage on realty and personalty would be nominal. It is probable that personalty was very imperfectly assessed in 1692. ADAM SMITH, in his "Wealth of Nations," first published in 1776, states that, whilst at that date real property contributed to the tax about one-tenth part of its annual value, personalty did not contribute more than one-fiftieth part. From 1692 to 1798 the land tax was renewed by an annual Act of Parliament, the rate varying from 4*s.*, 3*s.*, and 2*s.* in the £, and for a short period, under the peaceful administration of Sir ROBERT WALPOLE, in the reign of GEORGE II., the rate was only 1*s.* in the £. After the disastrous American War the rate was never less than 4*s.* in the £, and under an Act of Parliament passed in 1798 the tax was made permanent at that rate. At that date personalty was so imperfectly assessed that it contributed only £150,000 to the tax, and by an Act of Parliament passed in 1833 personalty was altogether relieved. It may be roughly estimated that agricultural land is now paying ten-fold more than it would pay if urban property and personalty paid their full share.

Under the Act of 1798 the option of redemption of the tax was, for the first time, introduced; and it has been so largely exercised that the tax now yields only £1,040,000, or rather more than half the amount raised in 1692. These redemptions render a revision of the assessment difficult, if not impracticable. An adjustment based on the rateable value of the property in each parish would probably relieve agricultural land on the average about sixpence in the £.

Few Members of the Institution are old enough to

remember the old tithe system, when tithe was either taken in kind or settled by compositions based on a valuation of the crops. For a full account of this state of things I may refer to my Paper on "Tithes, and Tithe Commutation," in the "Transactions," vol. iii., page 168. I entered my father's office in 1836, the year in which the Tithe Commutation Act—that great, wise, and beneficent measure—was passed; and I assisted in the preparation of the tithe maps and apportionments in many parishes. I am thus enabled to state with accuracy the average poundage of the tithe rent-charge on the rent of land. Of course the poundage was much higher on arable than on pasture land, inasmuch as the titheable produce of the former was much greater than that of the latter. Omitting those lands which were tithe free (principally lands which formerly belonged to the monasteries, and were not therefore charged with tithe), and those lands on which the tithe was covered by a *modus*, the full tithe on arable lands averaged about one-fourth of the rental value, and that of pasture land one-eighth of the rental value. The par value of £100 tithe rent-charge has fallen to about £75, but as the rents of land have also fallen to the same extent the percentage of the tithe rent-charge remains on the average about the same. But in many districts where the land is nearly all arable, comprising some of the finest corn land in the kingdom, the tithe rent-charge is more than the rental value. Taking pasture and arable land together, I believe that 3s. 6d. in the £ is a fair estimate of this burden on land.

It may, perhaps, be said that as the tithe rent-charge is a property distinct from the land it cannot fairly be called a burden. To this I reply that the tithe is a product of cultivation, and that English land is burdened to that extent in coping with foreign competition.

The earliest record we have of any provision for the maintenance of the poor is that of the tithe in very early times, when one-fourth part thereof was devoted to the relief of the poor; but in process of time this practice came to an end, and the whole tithe was appropriated to ecclesiastical uses. It has been generally believed that the maintenance of the poor was then provided for by the monastic institutions; but this is denied by HALLAM, in his "Constitutional History," though he admits that they dispensed a good deal by way of alms. There can, I think, be little doubt that much charitable relief was afforded by almsgiving at the numerous manor houses throughout the country. An Act for the relief of the poor, by a voluntary collection, was passed in 1535, in the reign of HENRY VIII., and, by a statute of first EDWARD VI., the bishop was authorised to proceed against such as refused to contribute. By an Act of 14 ELIZABETH these contributions were made compulsory. At length came the famous Act of 43 ELIZABETH, that admirable statute which continues to be the foundation of the poor relief of the present day. Its provisions are so well known that I need not dwell upon them further than to state that personalty was liable to assessment, though doubtless, from the difficulty of assessing it, the practice gradually fell into disuse. For many years an annual Act was passed exempting stock-in-trade from assessment, until, at length, the exemption was made permanent. The administration of the poor law became in course of time subject to great abuses. Each parish carried out its provisions through overseers annually appointed at the vestry meetings, subject to no control but that of magistrates at quarter sessions. There was, as might be expected, a disposition to maintain the poor at the cheapest rate; and in too many cases their maintenance was let by contract. The result may be imagined. CRABBE, in his poem "The

Village," draws a melancholy picture of a poorhouse, about the end of the last century, to which I refer my readers. The question of pauper settlement was a constant subject of dispute and litigation between parishes, and afforded much profitable occupation to gentlemen of the long robe. I may refer to an amusing case quoted by Lord CAMPBELL in his "Life of Lord Chancellor HARDWICKE":—

" A woman having a settlement
 Married a man with none ;
 The question was, Did it subsist,
 He being dead and gone ?
 Quoth Justice WEARG, ' The settlement
 Suspended did remain,
 The husband living, but him dead
 It doth revive again.' "

A flagrant abuse arose towards the end of the last century by the adoption of the system of outdoor relief. By the statute known as the "Gilbert Act," 22 Geo. III., c. 83, able-bodied paupers became entitled to relief at their own homes, with the result that indolent and idle men preferred pauperism to hard work, and invented every possible excuse to entitle them to parish pay. In 1796, consequent on the great rise of prices which followed the commencement of the French War, another Act was passed, 36 Geo. III., c. 35, which authorised the practice of aiding wages out of the poor rates. The effect of these successive measures was a steady and alarming increase in the poor rates, which rose from £600,000 at the beginning of the eighteenth century to £3,000,000 near its close. The following will shew the progressive increase in the early part of the present century, viz. :—

1801.—Population, 8,873,280 ; poor rates, £4,077,871.

Rate per head of population, 9s. 2d.

1812.—Population, 10,163,676 ; poor rate, £6,656,106.

Rate per head of population, 12s. 2½d.

1817.—Population, about 11,000,000; poor rate,
£7,870,801. Rate per head of population,
14s. 3d.

1834.—Population, about 14,372,000; poor rate,
£6,317,255. Rate per head of population,
8s. 9d.

What the rates in the pound were during these periods cannot be accurately estimated, as I know of no record of the total assessment of property in England and Wales prior to the property tax assessment in 1843; but the poundage must, in many parishes, have been much higher than it now is.

In order to remedy these evils, and to place the relief of the poor on a sound basis, the "Poor Law Amendment Act" was passed under the auspices of the Ministry of Earl GREY, in 1834, with the concurrence of all political parties, though the measure was bitterly assailed by the *Times* newspaper. Under its wise provisions, the administration of the Poor Law was placed under the control of a central board of commissioners, but the local administration was vested in a board of guardians elected by the ratepayers of each parish, under a system of plural voting graduated according to amount of rating; for which a purely democratic suffrage has been, unhappily, substituted under the "Local Government Act, 1894," thus taking the control of parochial affairs and the levying of rates out of the hands of those who pay them and placing it in the hands of those who do not. The Act of 1834 provided for the grouping of parishes into unions, the erection of union workhouses, and the abolition, with little exception, of outdoor relief. The effect was speedily felt in reducing the number of paupers, and the ratio of cost per head of population. In 1844 (the earliest year of which I have record) the cost of relief of the poor had fallen from 8s. 9½d. per head of population to

6s. per head; it has ranged, from that date, from 5s. 5¼*d.* per head in 1852, to 7s. 0¼*d.* in 1872, to 6s. in 1891; and the average for the entire period has been 6s. 0¼*d.* per head. The rateable value of all rateable property in England and Wales was, in 1889-90, £152,875,000. The amount of local taxation was £27,713,409, equal to 3s. 7½*d.* in the £, apportioned as follows, viz. :—

					s.	d.
Relief of the Poor	-	-	-		1	1
Police	-	-	-	-	0	6
Educational	-	-	-	-	0	6¼
Highways and Turnpike Roads	-				0	9¼
Sundry Charges	-	-	-	-	0	9
					3	7½

Excluding the Metropolis, the rates in the £ amount within a fraction to the same figure.

I have no sufficient data to enable me to ascertain the poundage of rates on agricultural land, but omitting the sundry charges of 9*d.* in the £, which would be principally chargeable on urban districts, would leave the poundage in agricultural districts 2s. 10½*d.* on the average; a figure which nearly accords with my own experience. The grants of the license duties and one moiety of the probate duties, amounting together to £6,109,910 under the provisions of the "Local Government Act, 1888," are equal to an apparent relief of 9¼*d.* in the £ to local taxation, at the cost of about 3*d.* in the £ on the income tax. The real relief is, therefore, less by that amount, or 6½*d.* in the £.

It will be seen that, with this exception, under an Act of Parliament passed so recently as 1888, personalty has almost entirely escaped contribution both to the poor rate, all other parochial rates, and to the land tax, although it was liable

to assessment, both under the Poor Law Act of 43rd ELIZABETH, and the Land Tax Act of 1692. The question has been much debated whether personalty ought to contribute its full share to local taxation. I have heard the distinction drawn that real property devolves by inheritance on those "who toil not, neither do they spin," whilst personalty is the result of industry, ability, and thrift. This, however, is true only to a limited extent, for what a large proportion of landed estate has during the present century been purchased by wealthy merchants and manufacturers, and what an immense amount of personalty is held in trust for those who no more toil and spin than the landowner. In fact, the owner of a large estate has duties to perform, and charitable calls to meet, which he cannot ignore, but which the plutocrat may, if he please, entirely escape.

It may, perhaps, be said that the produce of land is the source of national wealth, and should therefore bear the entire cost of the relief of the poor. Land certainly produces the raw material of wealth, but its produce is useless without the expenditure of capital in converting it to the sustenance and service of man. In other words, land and personalty go hand in hand, and are essential the one to the other. They both contribute to the cost of Imperial government, and I am at a loss to understand why they should not contribute in equal measure to that of local government.

The total annual value of property, both real and personal, assessed to the property and income tax in England and Wales is, in round figures, £600,000,000, to which real property contributes about one-third, and personalty about two-thirds. If the whole were assessed on equal terms, a rate or tax of 11*d.* in the £ would provide the annual cost of local government, and real property would be relieved to the extent of the difference between 2*s.* 10½*d.* and 11*d.*, or 1*s.* 11½*d.* in the £.

It will be seen by reference to the scale of Estate Duty, set forth in the latter part of this Paper, that the total exemption, until 1853, of real property from death duties, both probate and legacy duty, so far from being the result of partial and unfair legislation, was, at least as regards lineal successors, no more than a fair equivalent for the exemption of personalty from the cost of local government. The removal of the exemption of real property from the death duties, without a fair adjustment of the local rates between real and personal estate, has inflicted a flagrant injustice on the owners of real property.

I now approach the most important and controverted question of the Death Duties, which was debated at such great length by the House of Commons in the last Session of Parliament, and resulted in the passing of the "Finance Act, 1894." In introducing the Budget on which this Act was founded, the CHANCELLOR OF THE EXCHEQUER expounded a doctrine, I venture to say, entirely new in the history of Imperial Finance since England became a constitutional monarchy. He is reported to have said "that a man's title to his property (real and personal) ceases with his death, that it can only pass to his heirs or assigns by a fresh grant from the State, and that in making such a grant the State has an anterior title to what it may consider its share over any claimants by descent or testament."

Where, I ask, is the law on which this extraordinary doctrine is founded? If it be true, how does it consist with the language at the head of every Finance Act:—

"Most Gracious Sovereign,

"We, your Majesty's most dutiful and loyal subjects,
 "the Commons of the United Kingdom of Great Britain
 "and Ireland, in Parliament assembled, towards raising
 "the necessary supplies to defray your Majesty's public

“expenses, and making an addition to the public revenue,
 “have freely and voluntarily resolved to give and grant
 “unto your Majesty the several duties hereinafter men-
 “tioned.”

What need is there for the Commons to *freely and voluntarily give and grant* that which on death has already become vested in the State? By what deed or document is the residue restored to the representatives of its deceased owner, after the State has helped *itself* to what it requires? What is the validity of the title of the heirs and assigns of a dead man by primogeniture, entail, will, or statute of distributions? The grant to the State is purely free and voluntary; and what is not granted passes by law to the heirs and assigns of the dead man. I have dwelt at some length on this subject because the doctrine propounded by the CHANCELLOR OF THE EXCHEQUER appears to me to be fraught with the most dangerous consequences, and to be subversive of the ownership of all property, both real and personal.

Prior to the “Succession Duties Act, 1853,” real property paid no “death duties,” neither probate nor succession duty. This exemption has been often quoted as a flagrant instance of class legislation. It was, however, no more than a fair set-off against the exemption of personalty from local taxation. The probate duty on personalty was at that time two per cent.; and the legacy duty was at the rate of one per cent. on lineals; three per cent. on brothers and sisters; five per cent. on cousins in the first degree; six per cent. on second cousins; and ten per cent. on strangers in blood. Under the “Succession Duties Act, 1853,” real property was charged succession duty calculated on the value of an annuity equal to the net annual value of the property for the life of the successor. If real property was to be charged at all, this was a fair method of assessing the

impost; and it is much to be regretted that it has been departed from under the "Finance Act, 1894," and that the successor will in future be charged duty on the fee simple of the estate, thus paying duty on what he will never live to enjoy.

I now come to the "Finance Act, 1894," which has placed real and personal estate on the same footing for taxation to the "death duties," and for the first time on a scale graduated according to the value of the estate. I proceed briefly to describe its provisions.

Section I. enacts that, in the case of every person dying after the commencement of this part of the Act, there shall, save as hereinafter expressly provided, be levied and paid upon the principal value, ascertained as hereinafter provided, of all property, real or personal, settled or not settled, which passes on the death of such person, a duty, called "estate duty," at the graduated rates hereinafter-mentioned, and the existing duties mentioned in the First Schedule to this Act shall not be levied in respect of property chargeable with such estate duty.

The existing duties comprised in the First Schedule, and not to be levied in future, are as follows, viz. :—

1. The stamp duties imposed by the "Customs and Inland Revenue Act, 1881," on the affidavit to be required and received from the person applying for probate or letters of administration in England or Ireland.

2. The stamp duties imposed by Section 38 of the "Customs and Inland Revenue Act, 1881," as amended and extended by Section 11 of the "Customs and Inland Revenue Act, 1889," on the value of personal or moveable property to be included in accounts thereby directed to be delivered.

3. The additional succession duties imposed by Section 21 of the "Customs and Inland Revenue Act, 1888."

4. The temporary estate duties imposed by Sections 5 and 6 of the "Customs and Inland Revenue Act, 1889."

5. The duty of one pound per cent. which would, by virtue of the Acts in force relating to legacy duty or succession duty have been payable under the will or intestacy of the deceased, &c.

Under these provisions the "Estate Duty" is substituted for the probate duty previously in force, and for the legacy or succession duty of one per cent., payable out of real or personal estate devolving on lineal relatives of the deceased. The legacy or succession duty payable out of estate devolving on collateral relatives of the deceased, and on strangers in blood, continues in force, and will be levied in addition to the estate duty.

Under Section 17 the rates of estate duty are to be according to the following scale, viz. :—

Where the principal value of the Estate						Estate duty shall be payable at the rate per cent. of		
						£	s.	d.
Exceeds	£100 and does not exceed	£500	...	...	...	1	0	0
"	500	"	1,000	...	...	2	0	0
"	1,000	"	10,000	...	...	3	0	0
"	10,000	"	25,000	...	...	4	0	0
"	25,000	"	50,000	...	...	4	10	0
"	50,000	"	75,000	...	...	5	0	0
"	75,000	"	100,000	...	...	5	10	0
"	100,000	"	150,000	...	...	6	0	0
"	150,000	"	250,000	...	...	6	10	0
"	250,000	"	500,000	...	...	7	0	0
"	500,000	"	1,000,000	...	...	7	10	0
"	1,000,000	...	...	...	...	8	0	0

The rate of the settlement estate duty where the property is settled shall be 1 per cent. Under Section 18 the value for the purpose of succession duty shall, where the successor is competent to dispose of the property, be the principal

value of the property after deducting the estate duty payable in respect thereof, and the expense, if any, properly incurred in raising and paying the same.

Under Section 7 (5) the principal value of any property shall be estimated to be the price which, in the opinion of the Commissioners of Inland Revenue, such property would fetch if sold in the open market at the time of the death of the deceased.

Provided that, in the case of agricultural property where no part of the principal value is due to the expectation of an increased income from such property, the principal value shall not exceed twenty-five times the annual value as assessed under Schedule A of the Income Tax Acts, after making such deductions as have not been allowed in that assessment and are allowed under the "Succession Duty Act, 1853," and making a deduction for expenses of management not exceeding 5 per cent. of the value so assessed.

Section 7 (8) provides that the value of any property for the purpose of estate duty shall be ascertained by the Commissioners in such manner and by such means as they think fit, and they may authorise a person to inspect any property and report to them the value thereof. (9) Where the Commissioners require a valuation to be made by a person to be named by them, the reasonable costs of such valuation shall be defrayed by the Commissioners.

Section 10 (1 to 5) provides for appeal against assessments.

Section 10 (6) directs that the county council of every county or county borough shall, within twelve months after the commencement of the Act, and may thereafter from time to time, appoint a sufficient number of qualified persons to act as valuers for the purposes of the Act in their respective counties, and shall fix a scale of charges for the remuneration of such persons, and the Court may refer

any question of disputed value under this section to the arbitration of any person so appointed for the county in which the appellant resides or the property is situate, and the costs of any such arbitration shall be part of the costs of the appeal.

Section 18 (2) enacts that the principal value of real property for the purpose of succession duty shall be ascertained in the same manner as for estate duty.

Section 6 (8) provides that the duty due upon an account of real property may, at the option of the person delivering the account, be paid by eight equal yearly instalments or sixteen half-yearly instalments, with interest at the rate of three per cent. per annum from the date at which the first instalment is due, less income tax, and the first instalment shall be due at the expiration of twelve months from the death, and the interest on the unpaid portion of the duty shall be added to each instalment and paid accordingly.

The same regulations as to payment apply to the succession duty.

I now proceed to illustrate the working of the Act upon real estate. The following table sets forth the amount which is payable by lineal successors on estates of different value, and the average charge upon the income during the life of the successor, assuming his average life on succeeding to the estate to be 43 years and his expectation of life to be 25 years, worth in present money, according to the life tables scheduled in the "Succession Duty Act, 1853," 14 $\frac{1}{4}$ years' purchase.

ESTATE No. 1.

Net income, £400; value in fee, £10,000; estate duty, 3 per cent., £300.

Equal to $\frac{3}{4}$ year's net income;

Or to a yearly rent-charge for life of £21, equal to an income tax for life of 1s. 0 $\frac{1}{2}$ d. in the pound.

ESTATE No. 2.

Net income, £1,000; value in fee, £25,000; estate duty, 4 per cent., £1,000.

Equal to 1 year's net income;

Or to a yearly rent-charge for life of £70, equal to an income-tax for life of 1s. $4\frac{1}{4}d.$ in the pound.

ESTATE No. 3.

Net income, £2,000; value in fee, £50,000; estate duty, $4\frac{1}{2}$ per cent., £2,250.

Equal to $1\frac{1}{2}$ years' net income;

Or to a yearly rent-charge for life of £157 10s., equal to an income tax for life of 1s. $6\frac{2}{10}d.$ in the pound.

ESTATE No. 4.

Net income, £3,000; value in fee, £75,000; estate duty, 5 per cent., £3,750.

Equal to $1\frac{1}{4}$ years' net income;

Or to a yearly rent-charge for life of £262 10s., equal to an income tax for life of 1s. 9d. in the pound.

ESTATE No. 5.

Net income, £4,000; value in fee, £100,000; estate duty, $5\frac{1}{2}$ per cent., £5,500.

Equal to 1.375 years' net income;

Or to a yearly rent-charge for life of £385; or to an income tax for life of 1s. 11d. in the pound.

ESTATE No. 6.

Net income, £6,000; value in fee, £150,000; estate duty, 6 per cent., £9,000.

Equal to $1\frac{1}{2}$ years' net income;

Or to a yearly rent-charge for life of £630; or to an income tax for life of 2s. $1\frac{2}{10}d.$ in the pound.

ESTATE No. 7.

Net income, £10,000; value in fee, £250,000; estate duty, $6\frac{1}{2}$ per cent., £16,250.

Equal to 1.625 years' net income;

Or to a yearly rent-charge for life of £1,137 10s., equal to an income tax for life of 2s. $3\frac{3}{10}d.$ in the pound.

ESTATE No. 8.

Net income, £20,000; value in fee, £500,000; estate duty, 7 per cent., £35,000.

Equal to $1\frac{3}{4}$ years' net income;

Or to a yearly rent-charge for life of £2,450, equal to an income tax for life of 2s. $5\frac{4}{10}d.$ in the pound.

ESTATE No. 9.

Net income, £40,000; value in fee, £1,000,000; estate duty, $7\frac{1}{2}$ per cent., £75,000.

Equal to 1.875 years' income;

Or to a yearly rent-charge for life of £5,250, equal to an income tax for life of 2s. $7\frac{1}{2}d.$ in the pound.

ESTATE NO. 10.

Net income, £80,000; value in fee, £2,000,000; estate duty,
8 per cent., £160,000.

Equal to two years' net income;

Or to a yearly rent-charge for life of £11,200, equal to an
income tax for life of 2s. 9½*d.* in the pound.

I am aware that the duty may be paid in eight yearly or sixteen half-yearly instalments; but, as interest is to be charged thereon at 3 per cent. per annum, this does not affect the calculations, further than to spread the payment over eight years.

As I have already mentioned, these calculations are based on the average age of a lineal successor. In the case of a younger successor, the percentage of charge for life would be less, and in the case of an older successor, more than I have calculated. In the case of collateral relations—a brother, for instance, succeeding at 60 years of age to an estate of £5,000 per annum, worth, in fee simple, £125,000, the estate duty, at 6 per cent.,

would be	-	-	-	-	-	£7,500
The succession duty, at 3 per cent., on						
£117,500	-	-	-	-	-	3,525
						£11,025

Equal to 2½ years' income, and to a yearly rent-charge on the estate for life of £1,102 10s.; or to an income tax for life of 4s. 5*d.* in the pound.

Life insurance has been suggested as the most economical way of providing for the impost, and it can be effected at rates varying from 2 per cent. on a life of 30, to 5 per cent. on a life of 55. But this involves a sacrifice on the part of an owner in possession for the benefit of those who come after him. Insurance is not likely to be effected in cases where there is little or no margin of income. Those

who have recently paid the tax on their own succession will rarely be in a position to pay the premium of insurance, in order to provide for the tax which will fall due at their decease. Moreover, the amount assured will form part of the estate liable to duty, and will itself be taxed.

The lowest premium of insurance quoted for a life of 45 is £3 0s. 9d. per cent.

Supposing a landowner of the age of 45 to insure for the amount of the estate duty which will fall due at his decease, I calculate that the premium of insurance will be equal to an income tax for life as follows, viz. :—

Estate Duty, 3 per cent. -	-	5½d. in the £.
„ 4 „ -	-	7½d. „
„ 5 „ -	-	9½d. „
„ 6 „ -	-	11½d. „
„ 7 „ -	-	13½d. „
„ 8 „ -	-	15½d. „

SUMMARY OF BURDENS ON AGRICULTURAL LAND.

	s.	d.	
1. The Land Tax average	-	0 9	in the £.
2. The Tithe Rent-charge	-	3 6	„
3. Parochial Rates	-	2 10½	„
4. The Death Duties reduced to yearly average	-	1 9	„
5. The Property Tax	-	0 8	„
Total	-	9 6½	„
Of these only the Death Duties and the Property Tax fall on personalty	-	2 5	„
Leaving an excess of burdens on land of	-	7 1½	„

Yet at a time of severe agricultural depression of long duration; in the face of a continuous fall in the price of all kinds of agricultural produce, caused by an ever-increasing foreign competition; at a time when rents are steadily falling, and when landed estates are almost unsaleable, has the legislature thought fit to lay upon an already overburdened industry—the most important in the kingdom—a new and heavy tax, varying from 3 to 8 per cent. on the capital value of landed estate, and from 5 to 10 and 15 per cent. on the income for life of the successor.

The world is now one great field of production for the supply of human wants. British agriculture has to compete in the growth of wheat and all kinds of grain, and the production of cheese and butter, beef and mutton, with the vast untaxed regions of North America, Argentina, India, Russia, Australia, and New Zealand. The only protection is the cost of freight and carriage, which have been greatly reduced by the extension of railways and improvements in the steam engine. The population claims to be supplied at the cheapest rate of the markets of the world; and it is hopeless to expect to return to protective duties. But surely something should be done to relieve the burdens on home production, and to give British agriculture fair play.

The effect cannot fail to be felt throughout the entire community. The great territorial landowners, who have hitherto had a sufficient margin of income over expenditure to incur large outlays on permanent estate improvements, and to give employment to artificers in the erection of new farm homesteads and comfortable cottages, will find that margin reduced, and will curtail their expenditure; the squires, who have hitherto been able to keep up their country houses, will be compelled to reduce their establishments, and to employ fewer servants and labourers. In too many cases the manor-house will be closed; the labourers

will swell the numbers of the unemployed in the great cities, the tenantry will find less money laid out in repairs and improvements, the tradesmen in the market town will complain of dull trade and reduced profits. In fact, the very classes in whose favour the new system of taxation has been adjusted will indirectly feel its effects as well as those on whom they will more directly fall.

Mr. E. P. SQUAREY (Past-President) said the importance of the subject dealt with in the valuable Papers of Mr. DUDLEY CLARKE and Mr. STURGE was well illustrated by the fact that two Members, both so well acquainted with the incidence of taxation, should, independently, have seen the necessity of bringing the question before the Institution, and, still better, before the public, who, reading the reports of such Papers and discussions, might begin to realise, as they had hardly yet realised, the vast importance of the changes brought about by recent fiscal legislation.

He was sure he had the entire concurrence of the Meeting in proposing a vote of thanks to Mr. DUDLEY CLARKE and to Mr. STURGE for their most admirable, lucid, and exhaustive Papers. They stated clearly and definitely the sources of taxation, the methods by which taxation had, in the past, been dealt with, and its present incidence on, and application to, separate interests; and the Members present could not but feel extremely grateful to the authors for the light which had been thrown on many historical points in the question.

In view of the relentless fall in the value of cereals from which those interested in the land were now suffering, it seemed hard indeed that additional taxation should have been put upon shoulders, weakened as they were not only by that fall, but also by many continuous adverse conditions, physical and otherwise, so gravely affecting agriculture.

The action of the CHANCELLOR OF THE EXCHEQUER, and those with him, recalled to his mind that chapter in the Book of Kings which told how the young king elected to be advised by his younger friends, rather than by his older counsellors, to put heavier burdens on his people, a course which resulted, as it possibly would do in the present case, in disaster. Mr. STURGE's forecast with regard to the effect of the new estate duties was not more depressing than the circumstances of the case warranted, for he could not choose but think that the people who depended for income on purely agricultural lands would find their means very much strained by the incidence of these new taxes. The inability of the landlord to do, as he had hitherto willingly done, more than he was commercially bound to do, so as to maintain his estate and furnish reasonable employment to his neighbours, would seriously affect the prosperity of the tenants, labourers, and tradesmen. He was himself receiving instructions from owners to curtail every possible expenditure, and to limit it to that only which was absolutely necessary. Those present knew better than he could tell them that the expenditure on agricultural estates had hitherto been by no means limited to what was commercially necessary, but had been dealt with in a large and liberal manner, bringing the people and the owners into pleasant relations which might hereafter be very extensively and gravely changed.

One strange fact of the present time much impressed his mind. The elder Members of the Institution would, no doubt, remember the times—the halcyon times—when it was usual to calculate the value of a net annuity arising from land on the basis of from 27 to 33 years' purchase, and, in occasional instances, at rather more. In those days Consols stood at about from 92 to 94. But mark the change! At the present time a promise to pay by Govern-

ment, in the shape of Consols, represented something like 37 years' purchase upon that annuity, whereas an annuity arising from land, which one must even now hope would have a chance of rising in value (as, certainly, was not the case with Consols), stood at from something like 20 to 25 years' purchase. Why was there this huge interval of nearly 12 years' purchase in the annual value of a net annuity? In the one case there was the chance of improved value in cereals, which it was to be hoped were now at the lowest point, and in the other there was the certain fall in the annual income of Consols in 11 years from this date.

Mr. STURGE's table of the rate of taxes payable during the life of a successor was certainly startling. Scarcely anyone looking for the first time at that table could believe it correct; but he had known the author long enough to be sure that perfect reliance might be placed upon his figures. If Mr. STURGE had been in the House of Commons last Session, and had been able to put forward, as clearly and to an audience as attentive as the present, the figures which he had produced at page 81 of his Paper, he almost believed that, hard-hearted as the House of Commons was in this instance, it could scarcely have passed a measure which pressed so cruelly and so hardly on the landed interest and on real property in general as did the present Act.

Mr. F. K. MUNTON (Associate) said he was glad to have the privilege of seconding the vote of thanks which Mr. SQUAREY had proposed. He was much struck, as the last speaker had been, by the singular circumstance that two gentlemen, both eminent in their profession but from different parts of the country, should have simultaneously produced Papers dealing with the same subject. It shewed, as had been said, how acutely this matter was felt all over the kingdom. Reference was also made in Mr. DUDLEY

CLARKE's Paper to one read by Mr. JOHN HUNTER, the President of the Incorporated Law Society, dealing with the same subject. He (Mr. MUNTON) happened to be one of the Examining body of that Society, and he thought it would be an admirable course if Law Students and the Students of The Surveyors' Institution were, in preparing themselves for professional work, to study carefully these three Papers, as they would there find clearly and accurately set forth, first the means by which freehold property was to be acquired, and next, what the burdens were thereon. He believed that these three Papers contained more practical information on the subject than could be got from any text-book. The essays under discussion brushed away many of the cobwebs which had obscured the question, and afforded a clearer idea of the position brought about by this extraordinary Act of Parliament than was obtainable from any other source with which he was acquainted.

He thought all would agree that, whether in the abstract it was correct or incorrect to impose a larger duty of any kind on land, the present moment was extremely inopportune, and that the endeavour ought to be rather to lighten, as far as possible, the burdens under which agriculture toiled. He believed, with Mr. SQUAREY, that in a short time great trouble would arise in the application of the Act; but, if the Government for the time being would resort to the advice of such practical men as the three authors of the Papers to which he had referred, they would be safely helped in framing a workable measure.

Sir RICHARD H. PAGET, Bart., M.P. (Visitor), said he had no intention, on entering the room, of taking part in the discussion; his object in coming being to hear the Paper, which he had listened to with the greatest interest. The

impression left on his mind was, that it contained nothing but unanswerable arguments. What was to be said against it? Which of its conclusions could be denied? What portion of the evidence was insufficient or improper? What argument was weak and could be broken down? So far as he could judge, the attitude of the assembly was one of complete and entire approval of the Paper from beginning to end. That was a very important fact. The Meeting was no mere accidental assemblage of persons interested as outsiders in the question under discussion, but a body of experts, of eminently representative men, whose profession it was to deal with such subjects, and who were thoroughly acquainted with all the details and difficulties involved; and with due deliberation and care they put forth their arguments and arrived at conclusions which, he ventured to think, no man could gainsay. But was the matter to stop there? It was suggested that, if the authors of these two Papers had been able to take their place in the House of Commons, they might have even converted the CHANCELLOR OF THE EXCHEQUER; but the conversion of the House of Commons from a merely party view of such matters to a strictly judicial view was, he feared, more desirable than probable.

This matter of local taxation was one which in the course of his political life—now going back some 30 years—had been of great interest to him. He had studied it carefully, and, he thought, was able to appreciate all the facts stated in the Papers, and to realise the effect of them. The question was one of extreme importance, and he was very glad indeed that it had been thus taken up by The Surveyors' Institution. He trusted that their doing so would be recognised out of doors as a very serious fact. The public were apt, as all knew, not to listen to the old hands.

He had from time to time addressed audiences on this question of local taxation, but he now heard the arguments which he had himself used on many occasions put forward with greater force and ability than he could ever hope to exercise. The historical introduction of this particular Paper was a matter worthy of the highest praise, and, beyond the mere history, there were figures and facts, carefully compiled and ably marshalled, in a way which put the case as plainly as, it seemed to him, it was possible could be done. Like Mr. SQUAREY, he was startled to see the conclusions at page 81 of Mr. STURGE'S Paper—conclusions arrived at by careful arithmetical computation, by which the hateful system of graduated taxation was exposed in its nakedness. The proportion went steadily up from 3 per cent. to 8 per cent., and Mr. STURGE arrived at the somewhat astounding conclusion, that on certain large estates the amount to income tax for life of 2*s.* 9¼*d.* in the £. This shewed, in a way which he thought must appeal to every mind, that be charged by way of death duty would be equal to an these taxes meant the introduction of what all political economists had condemned, viz., a graduated income tax.

The figures shewed an income tax beginning at 1*s.* in the £, and running up to 2*s.* 9¼*d.* The Paper was, as it must necessarily be, of considerable length, and he could not attempt to criticise it in detail, but he ventured to say that, from beginning to end, there was not one word with which he did not agree; except, perhaps, that part where the Act of the 43rd ELIZABETH was called an "admirable statute." It might be admirable, but with limitations. It was admirable in the fact that it made provision for the poor of the country, but, otherwise, it was only so far admirable that it afforded an admirable opportunity for improvement. Thus, in a very small degree, he must

differ from the author of this excellent Paper, to which he hoped due publicity would be given.

One of the old chief arguments against reform of local taxation, and the only one ever put forward with any apparent strength, was that these were hereditary burdens, which ought to be borne without a groan, for, being hereditary, they were no burdens at all. The fallacy of that had been shewn long ago in the ablest way by Mr. DUDLEY BAXTER, but its fallacy must be preached and re preached until it sank deep into the minds of the public. The changes advocated by the author of the Paper were impossible unless he converted the public, and the public were slow of conversion. He would not go so far as CARLYLE, in saying that the population of the world consisted of a given number of people, mostly fools; but he would say that the public were hard to convince—and even such able, clear, and convincing Papers as these would take some time in sinking into the public mind—that local rates were not hereditary burdens, but a direct tax upon a special class of property.

Mr. HOWARD MARTIN (Fellow), in response to the Chairman, said he had nothing to say except to join in the general tribute of admiration of Mr. STURGE's Paper.

There was one thing he might remark, and that was the very conspicuous fairness Mr. STURGE had shewn towards the Act which he criticised; because Mr. STURGE's valuation always assumed that the principal value of an estate would never be more than 25 years' purchase of the actual net income, whereas in many cases the principal value of estates would include the values of parts of them that produced no present income, and in that case the actual amount of the estate duty paid would be sometimes two or three years' purchase of the actual net income more than Mr. STURGE's

calculation shewed, and would, therefore, unfortunately, be even more harmful to the interests of the land.

Mr. J. F. L. ROLLESTON (Fellow) said he gathered from the two Papers that the Finance Act of 1894 seemed to be regarded as the last straw likely to strain the broad back of the landed class to breaking point, and he thought that was a just view of the situation. He was sure all would agree with the principle that taxation should be placed upon those who were best able to bear it; but this Act of last Session imposed taxation without regard to previous burdens or ability to bear fresh ones.

Mr. STURGE's able Paper shewed the disproportion of taxation borne by those who owned landed property and by those who owned personal property. This disproportion had existed for many years, and had long been recognised; but he did not know that the case had ever been so well worked out and illustrated as in Mr. STURGE's admirable Paper. If it were proved, as he submitted it was, that the incidence of taxation was both unfair and unjust, it was right that remedies should be considered and endeavours made to get them adopted. He felt unable to add any suggestion to those in the Paper, but could only endorse the conclusion at which Mr. STURGE had arrived, that personal property, as well as real property, should be subject to taxation, and in the same way. The income of a millionaire, unless he had purchased a landed estate, almost entirely escaped any payment in respect of the education of the people, the relief of the poor, or the maintenance of the highways which he used, perhaps, to a considerable extent. He thought that the late Mr. RYDE's suggestion was a very practical one, that the education rate and the highway rate should be paid out of

the Imperial Exchequer, and placed on the income tax; except that he thought income tax already bore rather unfairly on professional incomes. The income of a professional man was not in reality an income. The man who worked his brain was using his capital, and it seemed to him that an income derived from labour of such a severe character should not be taxed in the same proportion as an income derived from realised and hoarded wealth. That seemed to him to be one of the matters which should be considered when this question was brought before a Commission or before Parliament. He admitted there were difficulties in re-adjustment, but if the thing were right and just he did not think it ought to be shirked because of the difficulty. The next thing, he supposed, would be a Royal Commission to inquire into the matter generally, and that, he thought, was all that could be expected in the first instance.

But there was one great difficulty under which the land classes suffered at the present time, and he did not think that any favourable legislation could be carried out until that was remedied. The land interest was, at the present time, a quantity to be neglected in Parliament, and such representation of that interest as there was was not united. Land questions received neither sympathy nor attention at the hands of Parliament. The clamour of the various factions and sections in the House of Commons, and the roar of the great monster outside, seemed to stifle the voice of those who would advance the claims of our greatest wealth-producing industry, and to drown the bitter plaint which was now heard from the desolate fields and ruined homesteads of this once prosperous country. He did not know how the matter was to be dealt with; but, if the discussions which from time to time took place in that Institution were to be anything more than merely academical, he thought some method should be

devised by which more effect might be given to the conclusions arrived at. Primarily, every surveyor was a man of some influence and position in the sphere in which he worked, and the only practical suggestion he (Mr. ROLLESTON) could offer at present was that the Members should all, after careful consideration of these questions, and after well-thought-out conclusions were arrived at, use their best endeavours to press and impress their views upon those entrusted with the business of the nation. It seemed to him that, in that way, they could best serve the great interests committed to their care and best carry out and give effect to the conclusions arrived at in these two very admirable Papers.

Mr. ARTHUR MACDONALD BROWN (Professional Associate) said he must, first of all, claim that indulgence from the Meeting which he knew was always kindly accorded to those who joined in a discussion for the first time.

If any doubt existed as to the fact of the inequality of local taxation, it would be set at rest by the Papers read by Mr. DUDLEY CLARKE and Mr. STURGE. There could, as Sir RICHARD PAGET pointed out, be no controversy whatever as to the fact that local taxation was entirely borne by realty. But even the worm would turn, and the question now, as it seemed to him, was, in which direction was the earthworm going to turn? It was claimed that the death duties had now been equalised on realty and personalty. Was it not time to equalise the life duties, or local taxation on realty and personalty?

The remedies which had been proposed and partly carried out might be divided into two classes—first, Exchange contributions to local taxation, which Mr. DUDLEY CLARKE stated at eleven millions, but which Mr. STURGE

put at six millions (perhaps Mr. DUDLEY CLARKE included elementary fee grants and such matters); but, taking the higher sum, namely, eleven millions, it was an entirely inadequate contribution of personalty to local taxation, as Mr. CLARKE had pointed out at page 53 of his Paper.

Then the other means of relief was the exemption of agricultural land to the extent of three-fourths. It had been suggested that some extension of that principle might meet the case. But any exemption of agricultural land, to the extent of three-fourths even, if it applied to the poor rate and local rates, would only have the effect of shifting the bulk of the burden from rural realty to urban realty, leaving personalty still exonerated. Why should they not ask for direct assessment of personal incomes to local taxation by adding to the valuation lists the last four schedules of the income tax, including Schedule D, on trades and private incomes? That seemed to him to be the direct remedy. He ventured to throw out the suggestion with a full appreciation of the enormous difficulties that it involved. Those difficulties had hitherto resulted in personalty getting off altogether, but were they now to be treated as insuperable? He thought some scheme could be devised which would overcome them. Incomes from realty were assessed to the local rates, and why not personal incomes? It would not involve a transference of the collection of all local taxation to the Inland Revenue officers. A rough-and-ready method was adopted of arriving at incomes under Schedule A; but there was a much better method of arriving at net incomes receivable from realty provided by the Assessment Acts.

He believed the income tax now raised equalled something like half the amount raised by the local rates. If that were so an income tax of double the present rate, or, as Mr. STURGE put it, of 11*d.* only, would produce the required amount, and

thus it would be at once seen what a relief it would be to the land.

It was also suggested that, in dealing with any proposal for re-adjustment—and one previous speaker had mentioned the late Mr. RYDE's opinion to the same effect,—certain matters of national rather than local concern should be paid for out of the Imperial funds. That would still further lighten the burden and involve no injustice whatever.

The collection of rates on the new basis need not be direct from the owner any more than it was at present. He was assuming the rates to be owner's rates payable by the occupier, and he thought there was now a necessity to revert to the system of the smallest occupier paying the rates. It was a most unjust principle that those who paid the piper should not choose the tune, and he thought the time had come for a revision of the system which would provide for some contribution to local taxes by the cottager and allotment garden holder. Any practical scheme for the true equalisation of local taxation would be a great step towards the necessary reform; for, if once a definite and clear proposal were placed before the country, the Chambers of Agriculture and all interested in land would take up the cry, and ask with united voice for a reform of the present system, with some reasonable chance of obtaining it.

Mr. E. J. CASTLE, Q.C. (Associate), said it seemed to him that a sufficiently wide distinction had not been drawn in the Papers under discussion between the agricultural interest and the landlords' interest. The two were not necessarily co-incident, for it was regarded as an axiom that the landlord practically took all from the land which the tenant did not require to recoup himself for outlay and expenses, and that all taxation, as the last speaker observed,

was paid by the owner. The rates taken off realty and put on personalty really became, therefore, an addition to the estate of the landlord.

The objection which had been taken to the taxation of realty alone, without including personalty, was really the creation of the farmers themselves. He had been afforded the opportunity, some years ago, of reading a Paper before the Institution, when he had carefully traced out the origin and growth of the system of Poor Law relief from the earliest times to the present day. He then thought that the reason why personalty was not taxed was because of the difficulties in the way of applying taxation to it; but he had grown older and wiser since then, and he now saw that the reason of its exemption from taxation was that in the days of Queen ELIZABETH nearly the whole property of the country consisted of real property, and when the Parochial Authorities met in solemn conclave they found that if they taxed personal property they taxed themselves, but if they taxed real property they taxed the landlord, and they, therefore, insisted on taxing the landlord. So the custom continued from time to time until the Act was passed of the 1 VICTORIA, legalising the system which had become general throughout the country, by which personal property was free from taxation. This seemed to him to be the creation, not of any political party, but simply of Agricultural Parochial Overseers and Guardians, or whoever had to assess property in the country. Everybody now recognised the injustice of it. Sir RICHARD PAGET said that taxes on land were regarded as hereditary, and, therefore, not to be touched. No doubt the feeling was that any relief only increased the estate of the landlord—that is to say, if any taxes now paid by the occupier were taken off, the tenant's rent would rise. In a street in London, for instance,

on the boundary line of two parishes, the rates were often heavier on the one side of the road than on the other, but the occupiers paying less rates paid a larger rent. Thus, if these so-called burdens were taken off the land, it was a question whether it would improve the condition of the tenant or simply add to the rent which the tenant would have to pay his landlord. If 1*s.* 11*d.* were taken off the tenant's rates, as was suggested, the question was whether, having regard to what Mr. Justice BLACKBURN used to call the "higgling of the market," he would not have to pay so much more rent to the landlord. All that the tenant could afford to pay was based on the question of what profit he could get out of the occupation, and, that being so, the tenant did not care where it went—whether to the local authority in rates, to the parson in tithes, or to the landlord in rent. He was taking the other side of the argument, with a view of ascertaining whether the present system pressed unfairly on the tenant farmer. Of course, if the incidence of taxation was really one of the causes of the present agricultural depression, it was a matter which would require most earnest consideration. The farmer was the food supplier of the country, the winner of the food from the earth, and everything that tended to encourage his industry would be a benefit to the community. He did not think this point should be lost sight of by the Meeting.

The burden of the recently-imposed death duties was, of course, very onerous, but he did not see any reason for complaint of any distinction between real property and personalty, for, to his mind, the positions of the two were equalised by the legislation which imposed those duties.

Mr. W. MATHEWS (Fellow) said it was well known

that there were many large estates, without encumbrances, where, taking into calculation the whole of the outgoings, the net income did not exceed 50 per cent. of the gross income, and, taking this fact into consideration, the figures given in Mr. STURGE's table would, he thought, assume an aspect even more alarming than they did at first sight.

The vote of thanks having been put and carried unanimously, the discussion was then adjourned.

AT
THE ORDINARY GENERAL MEETING,
Held on Monday, January 7th, 1895.

DANIEL WATNEY (VICE-PRESIDENT) IN THE CHAIR.

The adjourned discussion on the Paper read by Mr. WILLIAM STURGE (Past-President) at the last Meeting, entitled "The Burdens on Real Property and Land," and on the Paper read by Mr. A. DUDLEY CLARKE (Fellow) at the Meeting of November 26th, entitled "The Incidence of Taxation on Land," was resumed.

THE SECRETARY read extracts from letters received from Mr. STURGE, who was unfortunately unable to be present, as follows:—

"There is a great difference between Mr. CLARKE's Paper and mine as to the amount contributed from the Imperial Exchequer to the relief of local rates, which he states at eleven millions, and I at rather over six millions.

"I find, on reference to the Report of the Local Government Board, 1891-92, that the relief afforded in the year ending 31st March, 1892, was as follows, viz.:—

"Local Taxation (Licenses) -	-	£3,064,328
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"Probate Duty Grant -	-	2,248,949
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"Local Taxation (Customs and		
"Excise Duties) -	-	1,115,801

"Total -	-	£6,429,078
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“ I would make a few remarks on the observations made by Mr. CASTLE, Q.C., in the discussion at the last Meeting. He admitted that taxation falls upon the owner, and he proceeded to state that rates taken off realty and transferred to personalty become, therefore, an addition to the estate of the landlord. Admitting that in the long run the landlord would derive relief from an undue burden, yet he is not the only person who would be relieved, for the more the landlord is burdened the less able and willing is he to meet his tenants’ demands for reduction of rent and for improvements, and the less labour can he employ on his lands in hand. And it must not be forgotten that there is a large number of persons farming their own estates.

“ As regards the argument that realty should not be relieved from the hereditary burden of local taxation, the same argument is equally applicable to hereditary exemption from death duties. If the legislature is justified in imposing new burdens on realty, it is equally justified in imposing new burdens on personalty.”

In a further letter Mr. STURGE wrote:—

“ In the brief notices of my Paper which have appeared in the newspapers, I am represented as stating ‘that agricultural land is now paying tenfold more than it would pay if urban property and personalty paid their full share.’ If you refer to my Paper, page 69, you will see that this statement refers only to the *land tax*, and not to the burden of local taxation. If you refer to page 75 (the last paragraph) you will see that I state that ‘if the whole (personalty and realty) were assessed on equal terms, a rate of 11*d.* in the £ would provide the annual cost of local government, and real property would be relieved to the extent of the difference between 2*s.* 10½*d.* and 11*d.*, or 1*s.* 11½*d.* in the £.’ In other words, real property pays upwards of *threefold* what it

“ would pay if personalty paid its full share. Mr. DUDLEY CLARKE, in his Paper (page 53), states that the sum “ transferred from Imperial sources amounted, together “ with the previous Treasury subventions and the new free “ grant to elementary schools, to £11,800,000.

“ His authority for this is the Report of the Local “ Government Board, 1892-93, page clxxxi., paragraph 16. “ On the previous page, paragraph 15, the amount trans- “ ferred of Imperial taxation to the local taxation account “ for 1892 is stated at £6,429,079. The difference of up- “ wards of £5,000,000 between this sum and £11,800,000, “ is evidently the education grant voted annually by Par- “ liament. I do not think this can fairly be called a relief “ from *existing* local taxation, as it is a new charge paid “ out of Imperial sources, instead of being added to local “ burdens. This fully explains the difference between my “ statement and Mr. DUDLEY CLARKE’S.”

Mr. C. F. DOWSETT (Fellow) said that the Institution was under a great obligation to Mr. DUDLEY CLARKE and Mr. STURGE for calling attention to that most important subject the Burdens on Land. Before proceeding to discuss the Papers, which contained matter both interesting and instructive, he might be allowed to make brief reference to the ancient history of the subject. Both Papers dealt with ancient history, but he would venture to go back further still. It was stated by Mr. DOWELL, whom Mr. DUDLEY CLARKE had quoted, that there were no taxes paid by the ancient Britons. After the Roman conquest, however, like all other nations conquered by Rome, they were laid under tribute. Taxes were so oppressively enforced by Eastern nations that “ May God increase your tax-gatherers ” was a form of malediction. The Romans, as well as the Eastern nations, farmed out their taxes or sold them by

auction, with the effect of encouraging most unscrupulous acts of oppression and cruelty. A modern traveller, who was out, 20 years ago, in the region formerly known as Phœnicia, said the taxes in that district were valued at £8,000, but on putting them up to auction they were sold at £16,000, and, of course, could only be gathered by acts of the greatest injustice. Under ancient Rome, the collection of the taxes was so oppressive as at one time to have moved even NERO to compassion.

To go back further, the ancient Hebrews paid taxes of four kinds, viz., Tithes, Redemption-money, the First Fruits, and the Half Shekel, but their system of taxation was an equal one, taxes were not put on one part of the nation to the burdening of another part. To go back to a period contemporaneous with that of NOAH, *i.e.*, 4,195 years ago, the recently discovered ancient Babylonian records, translated by Professor SAYCE, revealed the fact that the tenant farmer, after settling the terms of his lease with his landlord, had to pay a tax to the State before he could get a title to his holding.

But to come to the more practical question before the Meeting. In Mr. STURGE's Paper some astonishment was expressed at the introduction of the Bill which afterwards became the Finance Act of 1894. Certain observations of Sir W. HARCOURT's had very much surprised Mr. STURGE, but when the debates in the House of Commons were examined it would be found that Mr. GIBSON BOWLES and one or two others had to propose over and over again amendments in the Bill, and, as a matter of fact, there were 28 very important changes made in it, and nearly one half of it was entirely new matter.

In referring to ADAM SMITH, Mr. STURGE said that real property paid one-tenth of the annual income, whereas personalty paid only one-fiftieth; but here ADAM SMITH was

arguing (and he was afraid in this particular he did not quite agree with Mr. STURGE) that if personalty were taxed, people would leave the country. He was not arguing, as he gathered Mr. STURGE thought, in favour of the taxation of personalty, but was finding an excuse for its exemption. Either ADAM SMITH, who was regarded as a great authority, or Sir WILLIAM HARCOURT must be wrong, for, according to ADAM SMITH, the effect of the Finance Act of 1894 must be to drive people out of the country.

A great deal was now said about the writings of ADAM SMITH and of JOHN STUART MILL; but he ventured to say that if those men, who were indeed eminent thinkers, were living in the present day, their principles of political economy would be very widely altered. ADAM SMITH's book was published at the end of 1775 (not 1776, as Mr. STURGE said, for corn was cheaper in 1776) when corn averaged 48s. 4d. a quarter, and JOHN STUART MILL's book was published nearly a century later when corn maintained a very high average price, and both those men wrote at a period when everything was prosperous. Such an argument as MILL used in Section 5 of Chapter 2 of Book 5 of his "Principles of Political Economy," about the unearned increment belonging to the State, would appear ridiculous at the present day without a provision for decrement of which everyone present could give many painful examples.

He should like to refer, in as few words as possible, to some points in the two Papers which he thought ought especially to be remembered, and to which public attention should particularly be called. Amongst his examples, Mr. DUDLEY CLARKE said that the farmer paid (say) £62 for rates, where the tradesman in a corresponding position only paid £4 10s. Attention to such cases of inequality should be insisted upon, and it should be fixed in the minds of sur-

veyors and of the public that, in the case of the farmer and the tradesman in a corresponding position, the one paid £62 a year, while the other only paid £4 10s. Then a case was given of the average taxes on the land amounting to 3s. 10d. in the £; and another example supposed two men investing each a sum of £6,000—the one a farmer investing in land, and thereby providing labour and doing an immense deal of good to his country, was taxed at £30 4s. 11d., whereas the man who put his money idly into the funds, and did nothing for his country, would get off with £2 3s. 10d. Those things were so striking, as set forth in the Paper, that they ought to be very widely made known.

Another illustration was given, namely, that of a farmer who paid a rent of £200 a year, and made a profit estimated at £75 a year. If the farm were tithe-free, it would be rated at about £180, which, at 2s. 3d. in the £, would be £20 5s. A shopkeeper or tradesman earning a profit of £75 a year would occupy a house and premises at, say, £24 a year, and would be rated at £20, which, at 2s. 3d. in the £, would be £2 5s., or 3 per cent. on his income. Mr. DUDLEY CLARKE said the result of the examples shewed that the man who invested his capital in land, and took all the risks it was now subject to, was taxed eight times as much as the other who retained his personalty. The proportion would, he thought, be found to be nine times. Then, as had been said, improvements were taxed at the same amount as average taxation, namely, 3s. 10d. in the £.

In Mr. STURGE'S Paper it was stated that agricultural land paid tenfold more than it would if personalty paid its full share,* that real estate was now paying an average of 2s. 10½d. in the £, and that, if personalty were equally taxed, a rate of 11d. in the £ would provide the annual cost of local government, and real property would be relieved to the

* See Mr. STURGE'S explanation, page 102, *ante*.

extent of the difference between 2s. 10½*d.* and 11*d.*, or 1s. 11½*d.* in the £.

Then Mr. STURGE gave ten tables shewing the effect of the Finance Act, which, under the oppressive system of aggregation and graduation, reached the enormous figure of 8 per cent. on the capital value.

A great deal of oratorical capital was made out of the question of taxation by their Progressive and Radical friends, and another opportunity would presently arise in a few weeks at the London County Council Elections, and, probably, in another few months at a general Parliamentary Election. He thought it well, therefore, to be posted up on the important points brought forward by the writers of these two Papers, so that opponents might be met with facts not to be gainsaid.

The working-man was hoodwinked by being told that he would soon become the freeholder of land, yet the land was so burdened as to make it certain that he could be nothing of the kind.

At the last Meeting he was surprised to hear Mr. CASTLE say that it was an axiom that the landlord took all from the land which the tenant did not require to recoup himself for outlay and expenses; for the tenant, surely, wanted more than bare expenses; he wanted, as others did, something to live upon.

It was argued by Mr. CASTLE that, if the taxes were less, the rent would be increased; but he did not see how this could be maintained when, all over the country, landlords were returning 20 per cent. and 30 per cent. of their rents. How, then, could anyone say that no relief should be given to land, lest the landlord should grab his pound of flesh?

Then Mr. CASTLE gave, as an "instance," the case of a street in London where the rates were heavier on one side than on the other. The occupier on the one side paid less

rates, but more rent. He ventured to say this was no "instance" at all, for London and country property was absolutely different. He should like to know what London landlord ever returned a tenant 20 per cent. or 30 per cent. of his agreed rent.

Then he ventured to ask what was to come of it all? On looking through the Papers and the discussion, he found, to put it in very few words, that Mr. DUDLEY CLARKE said, remedial legislation was necessary, Mr. STURGE said, surely something should be done, Mr. SQUAREY said, the matter should be brought before the public, Sir RICHARD PAGET said, it should be recognised out of doors, and Mr. ROLLESTON said, unless the discussion was to be merely academical some method should be devised to give it effect. Now, he would ask what it was proposed to do? Were the discussions at the Institution to be purely academical? Were they to be only before a sympathetic audience? Was it enough to ask a Member to read a Paper before a body of men who were all fairly certain to agree with him? He ventured to say "No." He found by the Charter and by-laws of the Institution that one of its objects was to "extend its usefulness for the public advantage," and he, for one, thought, now that the Institution had so grown numerically, it should grow equally in power. The Institution now comprised some 2,300 Members, and he ventured to suggest that the only way to give effect to the views expressed was to let the country's expression of opinion go from the country to Parliament that some relief must be given. If a Petition were prepared, in a short form, and a copy of it sent to each of the Members, and if each Member obtained only 20 signatures, these would form a list of more than 45,000 names, and, with the aid of the Central Chamber of Agriculture, there would be no difficulty in getting 500,000 names. He, personally, hated agitation—as he

felt sure everyone in this Hall did—in principle and in practice, but he was certain that in this case nothing would be done without it. He remembered, some years ago, going to the Colonial Office and submitting a proposal to the Colonial Minister of the day. The answer he received was—"I think your suggestion a very good one, but we cannot act on it until there is motion out of doors." This meant that there must be agitation.

In his Paper Mr. DUDLEY CLARKE suggested that it would take another Paper to instance the remedies. He hoped that Mr. DUDLEY CLARKE would be prevailed upon to write that Paper.

It was most desirable that some endeavour should be made to bring about the equalisation of taxation on realty and personalty, as well as the equalisation of railway rates and such things; but the landlord could not take the initiative, the farmer was too dispirited to do so, and it remained for some such body as The Surveyors' Institution to come into the field.

He held in his hand a Blue Book issued a little while ago, and he ventured to refer to it to shew that a Royal Commission would be absolutely useless. That Blue Book of Mr. PRINGLE's (himself an Assistant Commissioner) was presented to Parliament, and the Government had it before them, and yet in the face of all the facts set forth in it, the Government did not heed it, but were actually considering fresh burdens upon land, which they imposed in their Finance Act of last year.

There were many remedies proposed as a relief to land. Mr. BEAR's chapter in "Vinton's Almanack" enumerated some, while his article in the current "Quarterly" of the Royal Agricultural Society, which everyone present had probably read, was, as the *Times* said in its agricultural article of that morning, "a gruesome subject," and

proved the necessity for remedies. Mr. BEAR stated in his article that the CZAR had just granted measures of relief from taxation to all classes of agriculturists, and had also reduced the interest on State loans to agriculturists. What the CZAR had done the British Government might do.

The calamitous condition of agriculture made a passage in one of the famous Parliamentary speeches of the great Lord CHATHAM applicable at the present time, considering the injustice of inequality of taxation whereby land was oppressively charged:—"I call upon the spirit and humanity of my country to vindicate the national character. I invoke the genius of the Constitution."

Mr. JOHN SHAW (Fellow) said he was glad to have an opportunity of saying a few words on this very important subject; but, in the first place, he would like to join in expressing gratitude to the authors of the two Papers.

Those Papers shewed very clearly, he thought, that taxation had been, until a comparatively recent period, imposed upon personalty as well as upon real property; but at the present time all kinds of rates, as far as he knew at least, were put upon realty. Not only the poor rate, the road, and county rates, but all new assessments, and school board rates, sanitary rates, and, last of all, the parish council rate, fell upon real property.

One point in Mr. STURGE'S Paper struck him as being particularly practical, and that was with regard to land tax. It was shewn clearly that land tax was originally imposed by a rate over the whole of the country, which was, for the purpose of collection, divided into parishes and districts, so that a certain *quota* was put on each parish or district. That *quota*, according to Mr. STURGE, remained to the present time; so that in many urban districts, where property had increased largely in rateable value, the land

tax was almost *nil*, whereas in agricultural districts it remained at a very high figure. Mr. STURGE estimated that if there were a uniform rate over the whole of the country it would relieve agricultural land to the extent of about 6*d.* in the £. That was an important matter, and well worth careful consideration. A very interesting account was given by Mr. STURGE of his work, under the Tithe Commutation Act, beginning in 1836. He (Mr. SHAW) could not go back quite so far as that, but three years later he was engaged in much the same sort of work, in assisting in valuations, under the old Tithe Compositions and under the present Tithe Commutation Act. He did not quite agree with Mr. STURGE as to the proportion that tithe bore to the rental value of land; but he agreed with his principles of calculation, and the result was, broadly, much as he stated it.

He did not look upon the tithe on land in the way in which it was regarded by some at the present time. He looked on tithe as being property in land, and held that a titheowner had as much right to his tithe as a landowner had to his land.

Both Papers contained very clear and graphic accounts of the probable working of the Finance Act, and Mr. STURGE gave many remarkable illustrations. Take the case of a property of £28,000 a year, which would something like correspond with Mr. STURGE's illustration (No. 8), and would be of the net rental of, say, £20,000. That at 25 years' purchase would be £500,000. The estate duty on that would be £35,000, and, with the succession duty at 3 per cent., would make a charge of £50,000. He happened to know well a property of that description, where, until the last year or two, about £10,000 a year had been spent on repairs and improvements and the expenses necessary to keep up the estate, besides fixed charges

imposed upon it, and besides a considerable loss in rent and various other expenses. About 100 workmen were employed on this estate as well as builders and tradesmen who were benefited by the outlay for repairs, &c. In such a case as this, what would be the effect on the landowner's successor coming in and having to pay £50,000? Why, the whole of the money now annually expended on the property would have to be laid aside, and there would be no income for several years. The effect upon the neighbouring district must, he thought, be very severe indeed.

Another thing which struck him as bearing very hardly upon land was the property tax, which had been hitherto paid upon the full agricultural value of the property. Of course, Sir WILLIAM HARCOURT had now, for the first time, made an allowance of something like $12\frac{1}{2}$ per cent.; but that was nothing in comparison with the loss which the landlord had to incur. He knew a case in which property tax on about £13,000 a year had been charged, and the taxes paid on that for a great number of years. Nothing of that had gone into the landlord's pocket, for, as everyone knew, money paid for estate improvements did not now profit the landlord. It was not as it used to be when he got a percentage on the outlay, for now he must do everything for the purpose of keeping up the property without any return.

The rates had been put by Mr. DUDLEY CLARKE at 3s. 10d., and Mr. STURGE gave a summary of burdens, including tithe, of 9s. $6\frac{1}{2}$ d., less charge on personalty 2s. 5d., giving an excess on land, including tithe, of 7s. $1\frac{1}{2}$ d. in the £. He did not quite take Mr. STURGE's view, but would rather take a figure something like this—Land Tax 9d., Poor Rate, County Rate, School Rate, Sanitary and other Rates, less rates in aid 3s. in the £, Road Rates 10d., Property Tax 8d., and new Estate Duties, as estimated by

Mr. STURGE, at 1s. 9d. in the £, which made a total of 7s.—less taxes paid on personalty 2s. 5d.—leaving an excess of 4s. 7d. in the £, exclusive of Tithe. Of course, although Tithe was not, in his opinion, a part of the ordinary taxation, still it was a charge which at the present time pressed very heavily upon the landowner. As Mr. DOWSETT said just now, what was to be done? He thought all were agreed that something must be done, and that a very strong representation should be made, not only to the Government and to Parliament, but by endeavours to influence public opinion on the subject. Whether it was to be done in the way Mr. DOWSETT had suggested, or in any other manner, he was not prepared to say; but he thought the matter one of the utmost importance. The most extraordinary ideas were abroad on this question. No one seemed to realise the position of landed proprietors at the present time. It was said only a few days ago in a newspaper, not favourable to the present Government, but rather in opposition, that the best measure passed by the Government was the Finance Act. That statement had probably been made in entire ignorance of the effect of that Act on the landed interest. It was assumed that the large owners of property could afford to pay, to the relief of the small taxpayers.

Allusion had been made by Mr. DOWSETT to the Royal Commission on Agriculture, which had sat for a long time, with small results so far as he knew. The question of the unfair incidence of taxation had been very strongly pressed upon that Commission, but he was not aware that any steps were to be taken with reference to it. The question was whether it was yet too late to take some steps with the Commission in this very important matter. What was wanted, he thought, was to educate the people, and to make them thoroughly understand it. Judging by the few in-

stances which had come under his own knowledge, he thought it impossible to make the position clear to those who were not practically acquainted with the details. The position of a comparatively small landlord, whose income was reduced to almost one half, was a most serious and most unfortunate one. Those whose duty it was to advise such landlords did not know what counsel to give in face of the difficulties which would arise from the working of this Act if it continued in force.

With reference to Mr. CASTLE's observations at the last Meeting he might say that, in times gone by, when valuations were made for the purpose of ascertaining the real value of land, then it was the duty, as it was the practice, of everybody interested in such matters to ascertain, correctly, what the charges were, and, after arriving at the gross annual value, whatever it might be, to make such deductions, the residue being the net value to be paid by the tenant. That was all very well years ago when valuations were always made; but, speaking from his own experience, he never now made a detail valuation of a farm. It was practically useless to do so. The point to be ascertained—and he believed most practical men would agree with him—was what was the lowest possible sum that could be accepted for the farm to meet the circumstances; and not what it was really worth. He was perfectly certain that anything which could be done to remedy the existing state of things would be of advantage not only to the landlord but also to the tenant. He quite agreed with the words of Mr. DUDLEY CLARKE himself on this last point, when he said:—"But if equity is considered it should not matter who bears the rates. If the principles under which they are levied are unjust, a remedy should be applied."

Mr. R. H. REW (Associate) said he had not come to lay his views before the Institution, but rather as a listener, in the hope of hearing something that might add to his information on this most important question, to which, he need hardly say, he had given considerable attention in his capacity as Secretary of the Central Chamber of Agriculture, and also of the Local Taxation Committee. He should have been very glad, if time had allowed, to have gone carefully through these two Papers. He was sorry to say his necessary attention to other matters had not allowed him to give them the consideration that they deserved, but he had made a few notes upon certain matters which perhaps he might be allowed to refer to.

He thought everyone must acknowledge the extreme value of the two Papers under consideration, the enormous amount of research that had been expended upon them, and their value to future students in connection with this most important subject. He thought that, of all the problems which ever perplexed the mind of man, the subject of taxation was one of the most complicated, if one wished to arrive at actual figures that could be quoted in dealing with the question. Members present were, no doubt, well acquainted with the official returns with regard to taxation, which appeared to be subject to a sort of law that the information contained in them should be at least three years old. The latest Return, he thought, was Number 2, which was the first part of a series. That had just appeared, and was part of the Returns for the year 1892-3. Therefore the latest full Returns now obtainable were those for 1891-2. He hoped the time might come when some Government might see the advantage of endeavouring to place something like an approximate statement before the public, in the nature of a Local Taxation Budget, which

might bring the figures more up to date than those at present available.

There was a passage in Mr. DUDLEY CLARKE's Paper in which he said (page 53):—"In 1892 the sum so transferred from Imperial sources amounted, together with "the previous Treasury subventions and the new fee-grant "to elementary schools, to £11,846,000." He thought, as he had no doubt Mr. DUDLEY CLARKE would say when the time came, that these figures were taken from Mr. FOWLER's Return. It might be impertinent on his part to say that it was a misleading Return; but, at any rate, it contained a number of questionable statements which affected the whole position. In that Blue Book, Mr. FOWLER gave certain figures, which he thought should not have been included, to make up that large sum of nearly £12,000,000. He thought it possible to question the exactitude of the description given of those charges as charges of a local nature. He thought the charge for education was one which ought properly to have come on the Imperial Exchequer at the outset, and therefore, he should say, that all the money paid out of the rates for education was paid in relief of the Imperial Exchequer rather than that payments from the Exchequer should be described as in relief of the Local Rates.

Another point he would venture to refer to was the figure given by Mr. STURGE as the amount of Local Rates in the pound. He gathered from Mr. STURGE's Paper that the amount of rates in rural districts was 2s. 10½d. Mr. DUDLEY CLARKE had adopted the figure of 2s. 3d. That was also the figure given in Mr. FOWLER's return, which he had no means of challenging, and which might probably be accepted as approximately correct. At any rate, it came with the authority of the Local Government Board, and there was, perhaps, authority for it more than for

the figure given by Mr. STURGE of 2s. 10½*d.* He only mentioned this in order that no accusation could be brought of any attempt to exaggerate figures. A little while ago a Statistical Committee of the Central Chamber of Agriculture made inquiry throughout the kingdom on the subject, which went to shew that the rates came to something like 3s. 2*d.* an acre on agricultural land.

He was glad to see that Mr. DUDLEY CLARKE had given special attention to the argument based on the proposition that Local Rates were in the nature of an hereditary burden, and therefore not to be considered as rates on the land at all. The argument seemed to be based on the view that, if only a tax were imposed long enough, it ceased to be a tax at all. It seemed to him that a more extraordinary and iniquitous theory was never propounded by responsible statesmen.

He thought the whole question should be made one of principle rather than of detail. It seemed to him that the agricultural position, at any rate, was based on two main points. First of all, serious objection was taken to a heavy and increasing burden of rates on land. That statement had been challenged; but he ventured to say that the burden was increasing, though, possibly, the average rate in the £ in rural districts might not be shewn to have greatly increased. It came to this, that the actual charge on the land must be paid out of the produce of it, and, if one took the amount falling on land in relation to the amount now realised by the produce of the land, the relative proportion of the burden had, he thought, much increased.

The other point on which, he thought, agriculturists took their stand was that, whether the burden was a heavy one or an increasing one or not, it was, at any rate, an unjust one; and their contention was that, provided they could have equal taxation, they would be satisfied, whatever might be the result of the readjustment.

He had looked with interest to the Papers to find some proposal for meeting the objections to the present system. MR. DUDLEY CLARKE had thrown out a suggestion that the principle of assessing land at one-fourth—the principle adopted with regard to special sanitary rates—might be extended. He also quoted a proposal that the highway and education rates should become a charge on the Imperial Exchequer. He did not gather that Mr. STURGE made a definite proposal for a remedy, but he thought a body of men with such a vast amount of experience and practical knowledge as the Members of The Surveyors' Institution might usefully direct their attention to devising a better system of levying local rates on land. He was bound to say that he thought the time had come when they should have done with "tinkering" at the subject, and that they should endeavour to discover some more fair and equitable basis; and if, in the discussion, or in any further action that the Institution might take, they could succeed in finding a better system, they could hardly take up a better subject, or one that was of more value to the agricultural interest generally.

Reference had been made by Mr. DOWSETT and Mr. SHAW to the Royal Commission. He was afraid the result of the labours of the Royal Commission was not looked upon with special favour by those gentlemen. It might be mentioned that the Royal Commission was really only appointed 15 months ago, though some might perhaps think that a long time. The report which Mr. DOWSETT had quoted, and which had attracted much attention, was only a report presented by a Sub-Commissioner to the Commission. The Commission itself had not yet reported, and, until it did so, it could hardly be expected that action would be taken.*

* In a letter subsequently received by THE SECRETARY, MR. REW observes :—

"A speaker during the discussion made an interesting calculation

Mr. WILLIAM EVE (Fellow) said the question had been approached from two points of view—one, as he took it, in the interest of the tenant, and the other in the interest of the landlord. His view of the matter was that the amending of local taxation would not have such an effect on the tenant as to release him from his present almost desperate position. What, for instance, would be the prospects of those derelict farms shewn in Mr. PRINGLE'S map if the taxation were taken off entirely? Could they be let? Would the paltry question—and he was referring now to the particular locality to which Mr. DOWSETT alluded where the land was not rated at much more than 5s. an acre, supposing the rates to be 3s. in the £—would the remission of 9d. an acre meet the requirements? If it would not, what was to be the remedy for the present deplorable condition of things? Something

“ as to the amount which would have to be raised by a single tax to cover all present rates and taxes as follows :—

“ For Imperial purposes	...	...	...	£90,000,000
“ For Local purposes...	...	...	...	60,000,000
				“ £150,000,000

“ But in each case gross expenditure was taken instead of the total amount raised by taxes and rates. For instance, the total expenditure of local authorities in England and Wales is £63,000,000, but of this only £28,000,000 is raised by rates, the remainder coming from various sources, chiefly productive undertakings such as gas and water works, tolls and dues, contributions from the Exchequer, &c. Similarly, the amount of Imperial taxation is £75,000,000.

“ The question is a little complicated by the fact that we cannot give for the United Kingdom (as we can for England and Wales) the amount raised in rates exclusive of gas and water undertakings, &c. But I think it will be found that the amount of taxation, Imperial and Local, is about as follows :—

“ Imperial	...	...	...	...	£75,000,000
“ Local (not exceeding)	...	...	...	...	40,000,000
					“ £115,000,000

“ This would materially affect the argument used as to the levying of a single tax.”

besides local taxation must be dealt with; for any revision of it would not restore to prosperity that industry upon which the greatness of England was based. Something more far-reaching was required; but what that something was, he was quite unable to suggest, and he never heard anyone who could do so, except by utterance of that forbidden word "Protection"!

With regard to the Papers, they were very important, and no one who had spoken of them in words of praise had said too much for them; but he hoped he might be permitted to approach the subject not quite in the rather one-sided spirit in which some of the observations in those Papers were made. In the first place, the Finance Act was dealt with principally as imposing a charge on real property, but it was equally a charge on personal property. All the calculations were confined to real property, and he ventured to say this point must not be lost sight of.

The next question on which a good deal had been said was that of rating personalty. The rating of personalty was, no doubt, given up because of the impracticability of carrying it out on any fair principle. Personalty might be here to-day and somewhere else to-morrow, and, therefore, he thought it was utterly impossible to propose any system which should carry out that principle in anything like a fair manner. But there was one description of personalty to rate which efforts had been made. He alluded to machinery. An attempt was made in that direction with the result that Members of Parliament on both sides of the House used every endeavour to restrict it. He thought there was no objection whatever to rating personalty, so long as one could define where that personalty was, and could be sure that it would be in that particular place for some time to come; but to attempt to rate personalty beyond that seemed to him to be a matter of immense difficulty.

A good deal had been said about the graduated nature of the Finance Act. He was afraid he was in a fearful minority, but he was a strong advocate for graduated taxes. He believed thoroughly in a graduated Income Tax, and he hoped our rulers would be able to find some means of advancing that principle. He could not see why the graduated character of the imposition should be one of the arguments against the Finance Act. Succession Duty was graduated according to relationship, and Probate Duty was slightly graduated. It was merely an extension of the same principle, and he thought a very wise one.

He was not at all sure whether the language in which Mr. STURGE treated Sir WILLIAM HARCOURT'S observations was altogether consistent. He (Mr. EVE) thought that, when a man had used his property all his life, the State might well step in and say, "Before you pass it on to some body else, we are entitled to some of it." They said it by Probate Duty and by Succession Duty, and he did not know why they should not do it by the present charge of the Finance Act.

With regard to Mr. DUDLEY CLARKE'S observations on page 49, he thought it should not be forgotten that rates in time become absolutely a charge on the owner, and not on the occupier. That seemed to him to be lost sight of a little.

With regard to Mr. CASTLE'S observation relating to similar houses in two adjoining parishes, he could support it by actual facts within his own knowledge. In one parish the rates were 3s. 6d. in the £ more than the other, and he ventured to say, if any surveyor went over the houses and knew the rents they were respectively paying, he would say most distinctly the landlord was paying that extra 3s. 6d. in the £, and therefore it seemed to him to be a question for the landlord rather than for the tenant.

On page 50, Mr. DUDLEY CLARKE alluded to the unfortunate position in which A would be placed as compared with B, if he chose land for his investment. It struck him (Mr. EVE) all that A had got to do was to think before acting, and consider what he was going to pay, and then he might not have given quite so much for the property. Then it seemed to him A and B would be in an equal position: but if A gave as much for the land upon which he knew he had to pay taxes amounting to £30 4s. 11*d.*, as did B for property on which only £2 3s. 10*d.* was payable, he made a great mistake, and ought to suffer for it.

On page 60, Mr. DUDLEY CLARKE suggested a system, as he (Mr. EVE) understood it, of rating houses according to the income of the different occupiers. That seemed to him to be practically impossible. A person might take a large house and let lodgings and get very little out of it. The next-door house might be let to a person who had got £500 or £1,000 a year, as compared with the person who was letting lodgings in the same class of house. Was it proposed to investigate what money he was making? If so, it would come back, after all, to the sound principle of rates being applied to an income tax, and if that could only be fairly levied, he thought there was no better form of taxation. His idea was to get a larger contribution out of the Exchequer of the country.

He was very glad to hear Mr. SHAW's remarks with regard to tithe. He did not think that it ought to be looked upon as a tax. It seemed to him that it was no more a tax on land than the ground rent was a tax on the purchaser of a leasehold house, who, whether his rack rent went up or down, had still to pay that ground rent. Tithe was even not quite so arbitrary as that, for, as the price of corn went up or down, there was some modification made, and still further relief was given by the recent Act. So he

thought one might just as well, in taking a house, add the ground rent as a tax, as to regard tithe as a tax.

All these subjects were of very great importance, and he was very desirous that the question of relief to the tenant farmer should not be mixed up with the question under discussion, for he was sure no alteration of local taxation would, in itself, ever put him again on his feet.

Mr. DOWSETT said he thought Mr. EVE had put it very prominently before the Meeting that the relief proposed in regard to taxation would in no way meet the case of the tenant farmer, and that he considered the only remedy was the impossible one of "Protection"—with which he evidently had no sympathy. Mr. EVE, however, was very careful not to propose any alternative remedy.

In his Report, Mr. PRINGLE, as an Assistant Commissioner of the Royal Commission, stated that land which was shewn to be worth only £6 an acre would take £18 4s. 6d. an acre to restore it. He was quite aware that the taking off of taxation would not benefit such land one iota; it involved much larger considerations, but there were plenty of other instances where the taking off of taxation would largely benefit it.

Mr. J. H. SABIN (Professional Associate) said it was pretty clear that a commission of some sort was wanted. As to whether the landlord or the tenant paid rates, he thought that was a question settled many years ago; but for the benefit of those Members who were not clear on the point, he would suggest that they should read a Paper* in the "Transactions" by Mr. WILLIAM MATHEWS, which would, he was sure, convince them that the landlord paid the rates. If Mr. DUDLEY CLARKE, he ventured to suggest

* "Transactions," vol. xvii., page 377.

with great diffidence, would correct his figures as to the comparative income of the gentleman who invested in land, and the one who invested in consols, from the point of view that the landlord paid the rates, he would come to a very different conclusion from that arrived at on page 51 of his Paper. Before paying a penny down for the purchase of land, the purchaser, if he were a wise man—and if he were he would consult his surveyor—would take into account the fact that he would have to pay rates and Land Tax. How, then, could Land Tax be a deduction from an investment judiciously made?

There were several important principles involved in the Papers under discussion. Each would afford ample material for consideration if The Surveyors' Institution were the place where such problems could be satisfactorily solved; and although it was not improbable that the professional bias, against which HERBERT SPENCER warns all students of sociological phenomena, would discount the conclusions come to, the fact remained that such questions came well within the area covered by a surveyor's experience.

As might be expected from one of such breadth of view as their Past-President Mr. STURGE, his Paper was as free from the professional bias as could be reasonably expected; but it would appear that in the other Paper the land-agent had sometimes overruled the acute and independent mind of the author. Thus, while the one had a good word to say for two measures that had not escaped abuse—the Poor Law of ELIZABETH and the Tithe Commutation Act,—the other compared enviably the lot of the village tradesman and doctor and the moneyed capitalist with the poor farmer and the struggling landowner. But were there not struggling tradesmen rated up to the hilt on every improvement, racked by the surveyor of taxes, and paying to the full all the rent that a competent agent could obtain, without

any hope of redress, who would willingly change places with the farmer comfortably paying a composition of 3*d.* in the £ on his rent as income tax, without house duty, and with rates at a moderate amount in respect of the benefits enjoyed by him as the neighbour of a thriving town? And were not many capitalists exchanging their cash for the amenities, if not the profit, which landowning brings, and which have at least some market value?

The conclusions which the Papers seemed to lead to in respect of one question placed them in strange company, for two eminently conservative minds had been forced into adopting one of the most advanced radical tenets; viz., the imposition of a single direct tax in place of a number of indirect ones. Mr. STURGE found it convenient, in order to best illustrate the incidence of the newly-revised death duties, to convert a capital sum payable out of a larger capital sum in the course of its transference from one owner to another, into a direct annual tax payable out of income.

Whether a single tax would be expedient or not, it was curious, to say the least, that this would seem to result. The figures given as the total raised for local taxation were, say, sixty million pounds. The national outlay was ninety millions. The two represented an income tax of about 6*s.* in the £ on the incomes and properties now assessed, or $\frac{1}{2}$ *d.* less than Mr. STURGE's estimate on page 84, after deducting tithe rent-charge. It would be interesting, but not here profitable, to pursue the investigation further.

Nor could one venture far into the differential taxation on the inheritance of real and personal property. Was it not possible that, in comparing the two to the disadvantage of the former, Mr. DUDLEY CLARKE might be forging weapons for that attack upon money capital which land and labour seem destined to wage?

But was there adequate reason for the attack on the new death duties as respects the equal taxation now leviable? Was there any difference between capital on land taken, be it observed, at the price which "such property would fetch if "sold in the open market," and the capital value of Argentine stock or Manchester Ship Canal shares; with this additional safeguard that agricultural land was not to be taken at more than 25 times the amount of the value as assessed, with a deduction for agency! It might not be part of a surveyor's duty to discuss the economic principles involved, but it might become the duty of many present to value agricultural land at much less than 25 times the amount of its *assessment*, even were they surveyors appointed by a County Council.

But he must leave these matters, however tempting they might be, for the more practical part of the Papers. And might he venture to remind the Meeting that, while the Institution did not place its imprimatur on the opinions expressed in that Hall, it did advise the Students and younger Members to study the "Transactions," and especially those specific Papers recommended as text books. In due time these two Papers would be referred to as eliciting the phenomena of the incidence of taxation on land, and he ventured with some diffidence to point out one or two misconceptions which might arise in the mind of a less-informed student.

First, as to the conversion of the duty into an annual payment. Surely the tax was not one on the future income, but on the past. On death the State stepped in and demanded a toll, as the king did of old. This toll was payable out of the accumulated sum, and the heir was not heir to the whole, but to a part. A wise testator would have made provision for the toll by laying by such a sum as would pay it, and the annual amount would not, there-

fore, properly be the yearly rent-charge payable after the inheritance, but such a sum as would accumulate to the required sum, or, in other words, the premium on a life policy.

But, again, it was not fair to take this annual sum as a sum chargeable entirely as a new one. There was already a succession duty on realty, and, if any calculation was to be made of the new death duties, credit must be taken for the old ones remitted, that is, to the extent of the $1\frac{1}{2}$ per cent. duties on the succession value.

And, further, was it not a pity to allow it to go on record that a tax to the incidence of which everyone was liable could properly be deducted in estimating the value of one class of property? What pressed equally upon all classes could not be to the especial disadvantage of one. If one exchanged £10,000 capital invested at $2\frac{1}{2}$ or 3 or 4 per cent. in shares, for £10,000 capital invested at a net $2\frac{1}{2}$ or 3 or 4 per cent. in land, one must not depreciate the value of the income from the land by debiting it with income or property tax, nor ought one—and this in special reference to Mr. DUDLEY CLARKE's conclusions on page 43—in exchanging £100,000 now liable to a duty of £5,500 for an estate in land of £100,000, to depreciate the latter by the duty it was equally liable to. That which pressed equally upon all was not a burden upon one more than another.

To give a practical illustration. Was an Adventurer's share in the New River Company, valued at, say, £100,000, worth £5,500 less to-day than before the Finance Act was passed, or was there any surveyor present who had written down the value of the estates he may have had for sale by the amount of the additional duty?

In conclusion, and as apposite to this view, might he suggest that it would be exceedingly undesirable that the Institution should, at this time, stamp the property tax and

the estate duty as both equally permanent rates, by seeming to allow them as legitimate deductions?

With regard to one other matter he ventured to say that he was entirely at one with Mr. DUDLEY CLARKE. The incidence of the land tax was a crying injustice in numerous districts. It was no longer a tax on land in any sense, but rather a tax on capital transferred by force of circumstances from personalty to realty. If The Surveyors' Institution were to move in the direction of obtaining some redress for this real wrong it would be doing a service.

Generally speaking, he ventured to agree with Mr. EVE that the fact had been overlooked, as regards the Finance Act, that it levied a duty on all properties, and not on one alone, and it must not be forgotten that the CHANCELLOR OF THE EXCHEQUER had to face the question—How was the money to be raised if the Finance Act were not passed? There could be only one other way, and that was a great rise of the income tax, and, probably, that was as unpleasant to the landowner as any other method of taxation. Beyond the main issue several important principles were involved, each of which would afford ample material for several evenings' discussion.

Mr. A. DUDLEY CLARKE, in reply, said he should like to say one or two words with respect to Mr. STURGE's Paper, which he considered a very valuable one, and he was very pleased to find that the conclusions of Mr. STURGE and himself, although they were working quite independently, were practically identical. The few remarks that he had to make would not be by way of criticism in the slightest degree.

Mr. STURGE had alluded (he particularly noticed that fact) to tithe rent-charge as being one of the burdens on land. He scheduled it as such. He (Mr. DUDLEY

CLARKE) hesitated, as did several of the speakers during the discussion, to schedule it actually as a burden on land. He thought that the question of tithe was one that now deserved a good deal of consideration, in view of the actual circumstances of the present day. What might have seemed to be fitting and proper at one time might not commend itself to us at another time, and it did seem that this was a very peculiar burden to be attached to a particular class of property when one bore in mind that the same property was at the present time suffering to a very material extent from depression. It was the more peculiar because it must be admitted that a tax upon land, or a tax upon produce, was a tax on a man's energies, and a man's capital. Remembering that land was now bearing that peculiar impost of 3s. 6d. an acre, which, he had no reason to doubt, was somewhere near the correct figure, he thought at least that that formed an additional reason, if one were required, why land should receive full consideration in regard to taxation both local and Imperial.

Several gentlemen present had, he was glad at that hour to say, anticipated references he had intended to make to several matters; but he had noted, as had Mr. REW, an evident oversight in Mr. STURGE's Paper. On page 64 he put down the taxes in agricultural districts at 2s. 10½d. in the £. He said that this was only an estimate made when he had no data by him to check it, but he (Mr. DUDLEY CLARKE) had referred to the Local Taxation Returns, and the figure there was, as he had himself stated, 2s. 3d. in the £. With that exception, he had not been able to find anything in Mr. STURGE's figures at all inconsistent with his own.

With regard to his own Paper, he was much indebted to the Members of the Institution for the manner in which they had received it, and particularly so to the speakers who had said such kind things about it. It was his good fortune,

he thought, to have very little in the way of criticism to reply to. In fact, it seemed to him that, almost without exception, as soon as a point had been raised, some speaker had been kind enough to reply to it; but he must say that he had had rather a bad quarter of an hour during the speech of Mr. SABIN and that of Mr. EVE, who, it appeared to him, did not sympathise very much with the agricultural interest.

Mr. EVE, remonstrating, said that, as the son of a farmer who paid 76 years' rent of one of his farms, he well appreciated and sympathised with the difficulties of agriculturists, and he could not allow Mr. CLARKE's remark to pass without at once repudiating it.

Mr. DUDLEY CLARKE, continuing, thought a great many of Mr. EVE's remarks travelled beyond the subject altogether. He referred in great measure to the remedies. He thought that in his Paper he scarcely attempted to suggest anything in the way of a remedy, and he did not think Mr. STURGE did; but the argument of Mr. EVE seemed to be that, because farmers were in such a dreadful state that no means of putting them in a prosperous condition again could be devised, it was utterly ridiculous to attend to such a small matter as rates and taxes. He (Mr. DUDLEY CLARKE) considered that everyone should do what he could, and if the Members of that Institution understood the question of rates and taxes better than others did outside, let them put their shoulders to the wheel, and if they, in this direction, and the Chamber of Agriculture and similar bodies, in other directions, could help, each to a small extent, to lift agriculture out of the rut, then in the course of time they might hope, perhaps, to speed it again on its way to prosperity.

With regard to the question of rates, and whom they were to fall upon, as a matter of theory, rates did ultimately fall upon the landowner. But in practice, he thought, it took a very long while, at any rate in agricultural practice, to reach the landowner when there was an alteration in local assessment. But, whether rates fell ultimately on the landowner or not, he could only repeat that, if there were any injustice whatever, that injustice ought to be removed, and he thought anyone familiar with the agricultural problem at the present day—and no one could be thoroughly familiar with it unless he had daily intercourse with landlords and tenants—would know that anything in the shape of relief, which, at the present time, would be given to a landlord by readjustment of unfair taxation, must help him materially to exercise greater generosity to his tenants. Many landlords, at the present time, were giving remissions to the full extent that they were able, and leaving themselves hardly sufficient to live upon, and he was sure that, if they could get any benefit whatever from an alteration in the incidence of taxation, it would go, in a great many instances, to the benefit of their tenants. It was impossible for him, during the time at his disposal, to refer to all the many points that had been raised by the last two speakers. While he had, in his Paper, said pretty well all he had to say, he thought the Meeting had, during the discussion, heard very nearly all that was to be said on the other side.

He would merely refer to the remark of Sir RICHARD PAGER, who said:—"The fallacy of that" (*i.e.*, the argument that taxes on land were hereditary burdens) "had been "shewn long ago in the ablest way by Mr. DUDLEY BAXTER, "but its fallacy must be preached and repreached until it "sank deep into the minds of the public." He thought this was very true, and he hoped that this discussion would materially help to bring these facts home to the

minds of the public. It was a very difficult thing to do, because, in the first place, there were a great number of people who could not understand these things without making a considerable effort to do so, which effort was very irksome to them ; and there were also, he thought, a large number who did not wish to see them in the light in which others saw them, revealing the greatest injustice to our greatest national industry, now in the throes of distress. He did not think that either Mr. STURGE or himself objected at all to taxes, as Mr. SABIN seemed to suppose. What they objected to was unfair taxes, and he believed they had done something to shew that they were unfair in more ways than one. He was sure that, after adding up, as Mr. STURGE had done, all the imposts that land had now to bear, commencing with the tithe, and finishing with the charge for the new Estate Duty, many people would come to the conclusion that the tax-gatherer collected more from an acre of land than either the landowner, the tenant, or the man who worked on it.

The Meeting then adjourned.

A SHORT PAPER ON THE LONDON BUILDING ACT, 1894.

BY HENRY BLACKBOURN (FELLOW).

Read at the Ordinary General Meeting of THE SURVEYORS' INSTITUTE, January 21st, 1895, prefatory to a Discussion on the Act.

THOMAS CHATFEILD CLARKE (PRESIDENT) IN THE CHAIR.

THE circumstances under which we have now met to discuss the London Building Act of 1894 are very different from those when I had the honour to read a Paper on the proposed Bill last February. The dangers that then threatened, from the proposal to effect public improvements at private expense, have been happily averted, and a measure which was regarded in some directions as almost tyrannical has been softened down into an Act calculated to greatly improve London, while dealing equitably with individual interests.

How has this desirable result, which in the concluding words of my Paper I stated as possible, been brought about? First, by the exertions of the leading experts (architects and surveyors) who represented the owners of property in the Metropolis; and secondly, by the prompt and energetic action of our own Council. Without in any way depreciating the work of others, it is simply a fact to be recorded that, before others, and more strenuously than others, and at a large pecuniary outlay, the Council of this Institution stepped forward at the outset and maintained throughout, by a large expenditure of time and trouble, the lead in opposing those provisions

which marred the Bill as first drafted. No gentlemen could have been selected more capable of dealing equitably with the questions raised before the Committee than MR. ARTHUR GARRARD, MR. CUBITT NICHOLS, and MR. HERBERT T. STEWARD. It is with satisfaction we have seen that not only have you, MR. PRESIDENT, been appointed to the Tribunal of Appeal by the Council of this Institution, but that the nominee of the SECRETARY OF STATE is also a member of our Council, and the nominee of the Royal Institute of British Architects a Fellow of The Surveyors' Institution, so that all three are Fellows, and two out of the three are members of our Council.

Apart from the many and varying details in which the new Act differs from the old, are two new special provisions which will facilitate business and the obtaining, without undue delay, of practical decisions in disputes, viz., the establishment of the Tribunal of Appeal just mentioned, and the series of provisions through which the County Council may exempt certain cases from the mere letter of the Act.

The new Tribunal is a great improvement on the original proposal. Of two of the members then suggested, but now eliminated, one never wished to be there, and the other, as representing an interested party, had no right to be there. Much may reasonably be expected of this Tribunal, but its success greatly depends upon the expense attending its judgments. To occupy the time of its members must mean adequate recompense to them, and there are the further costs of staff and accommodation. While deprecating cheap litigation, there is danger in raising the costs to appellants to too high a point, as this would defeat the desired end. Doubtless this can only be tested by experience, but it may be well, in view of the benefit afforded by ready decisions in disputes, not to try to make the Tribunal self-supporting.

Then as to the many provisions for waiving a prohibition by the words "*The Council may permit.*" This, surely, is wise, when we think of the very varied circumstances, surroundings, and classes of buildings, which cannot possibly be separately enumerated, to which the Act applies. A prohibition perfectly just in general principle may, under exceptional conditions, be harmful and oppressive. In such cases there is now very rightly afforded a way of escape by application to the superintending architect, or, finally, to the Tribunal. On the other side it may be urged that, should the business of the Corporation administering the Act be hereafter loosely conducted, a ready door would be open for all sorts of evils. But that risk should not be considered a sufficient reason for withholding the power to grant these conditional "permissions." An Act with such an enlarged scope must be a more delicately adjusted machine than the former Act if it is to deal practically with so many interests without injuring some of them. The times called for more stringent regulations, but no one would have felt justified in laying down perfectly inflexible rules.

While speaking thus in praise of the Act, probably no one—possibly not even its promoters—thinks it all that can be wished. We view it with a feeling which some of us know when we have done our best in designing a building. We get it fairly as we think it should be. But the client wants a window added here, and a roof altered there, and a Vestry surveyor has a restriction on this side, and the owner of an ancient light is unreasonable on the other, till when our building is up we feel it is not quite so much our own creation as we had wished. It is possible that as the result of the combined aims of those who obtained a *locus standi*—even though a friendly one in the main—against the Bill, the Act is hardly so clear as those who drafted the Bill would desire.

The much-condemned proposal in the draft Bill to give the Council power, if they so desired, to insist on new roads being, for the public good, made over 40 feet and up to 60 feet wide, at the landowner's expense, has now happily disappeared. The greater width may be required, and rightly so, but compensation must be given. Compensation is also to be given when buildings are taken down, or burnt down and rebuilt further from the centre of the roadway in consequence of the regulations of the Council. In this they have our goodwill, for our objection was never to wide roads and ample open spaces—quite the contrary, it was only to their being obtained without payment. Indeed, it may be questioned if the limitation to the width of 60 feet is wise, and whether powers might not well have been obtained for acquiring open spaces without a separate Act of Parliament, just as an increased width of roadway can now be required.

Section 11 is one of special interest because it recognises the rights of owners to reasonable and fair treatment at the hands of the authorities administering the Act.

It provides that where roads or ways are proposed, to which, for various reasons set forth, the Council object, they shall, within two months of the receipt of the application, state fully all reasons for such refusal, or for the imposition of conditions under which the road may be made, as the case may be. Provided also that if, within the said period of two months, the Council fail to give notice of their refusal to sanction such adaptation or of their sanction of the adaptation subject to conditions, they shall be deemed to have given their sanction thereto.

It has been stated that Clause 4 of this section, under which sanction may be refused by the Council for a road not affording direct communication between two roads, will prevent crescents being formed, and that this would be

antagonistic to the avowed aim of the Act to increase the number of open spaces. But Section 19 provides for appeals, if necessary, to the Tribunal, and affords an instance of the utility of this provision to which attention has already been drawn.

With regard to the provision for more space at the back of domestic buildings made by the diagonal line of $63\frac{1}{2}^{\circ}$, it may fairly be hoped it will be successful. As it appears in the Bill it is well safeguarded, relief being allowed in certain cases, where there is another street at the back, or an open space dedicated to the public or permanently secured by covenant: also in the case of corner houses abutting on two streets, or upon an open space dedicated or secured as before. Further, with respect to domestic buildings abutting on roads already laid out, the level of the horizontal line from which the angle of $63\frac{1}{2}^{\circ}$ is drawn is raised 16 feet, and the open space may be provided above the level of the ground-floor ceiling. When we notice these exceptions detailed in the Act—they are but sketched above—we can see it is a fully-considered attempt to give the benefit of light and air to future buildings, especially to those in the new rings being formed round central London.

It has been suggested that the back walls, retreating floor after floor, likely to be built in consequence of this requirement, will be disadvantageous to sound building; but is it worse to cut up a wall horizontally into, say, four parts, and put each quarter on a girder than to put the whole height on one girder, as usual over shop fronts? May it not in some ways be an advantage; for the prescribed piers under the bearings of the girders or bressumers will tend to strengthen the party walls? Yet it must be admitted that the shallow roofs covering such low walls will tend less effectively to resist the spread of fire than one

solid wall from the bottom to the top of the house ; also that the girders carrying the back walls of the upper floors will be specially subjected to the play of flames in the event of fire. Further, it may become a question, what height will form a wall to separate each of these shallow roofs, so as not to transgress the requirement of Section 62, that there shall not be more than two storeys in the roof of any domestic building? Convenience and economy will, probably, fix the height at about 7 feet, which is ample head room, and the height that windows must extend up to from the floor. Yet this height does not seem absolutely necessary, for the windows might be dormers, together less than one-third of the length of the back wall.

In Section 41, Sub-section 4, Clause B, is a paragraph that may be thought questionable. In a corner building abutting on two streets the Council may permit buildings at the rear 30 ft. in height, "*provided that the Council be satisfied that such buildings shall be so placed as not to interfere unduly with the access of light and air to neighbouring buildings.*" This applies to new roads hereafter to be made. With reference to buildings abutting on existing roads there is the modification that the horizontal line shall be raised. The adjacent buildings must then have all their direct light uninterfered with under the new provisions, unless the sites are extremely oblique with the building line; why then should loss of light from the side be considered? Is it wise for the Council to take authority in such complicated matters as light-and-air cases?

Section 52 provides a different and less exacting use of the diagonal line in the case of houses with stables in their rear, entered from a mews. When the stables do not occupy more than 50 ft. at the back of the plot and are only 25 ft. high, and the 10 ft. in the rear of the house is provided, then the diagonal line may be set farther back, and so a

greater height at the back of the house be allowed. In passing, it may be asked why this section should be 52 when it immediately concerns Section 41 ; indeed, were it not that Section 41 is already too long, it might well be part of it. But why should it be put ten sections behind ?

Sections 42 and 43, dealing with spaces for more light and air around dwellings for the working classes, seem scarcely likely to benefit those classes, unless such buildings are erected by public bodies. The difficulty there now is in getting any adequate return for capital so invested will be increased by these provisions.

In the changes in the schedules of thicknesses of walls, those affecting high walls, both where increased and diminished, were shewn by past practice to be desirable. But it is still a question if the best has been done in thickening walls under 30 ft. The deficiency was not in strength, but in the manner of building, and in the impotency of an ordinary 9-in. wall to keep out damp. But if this latter was the view, why should any 9-in. external walls be allowed ? The first cost, and, consequently, ultimately the rent of the houses in which the masses live, will for the future be increased. The next three or four years will see a rise of ten or fifteen per cent. in the value of all houses of, and under, £50 annual rental, and building around London will for a time be checked.

Section 73, giving greater facilities for architectural treatment, may be considered generally advantageous. Many permissions might formerly be readily obtained by special application. Now this is avoided and the definite set of rules will ensure safety in construction and prevention of the spread of fire. Section 73 specially deals with bays, oriels, barge boards, and cornices, and with wood cornices, and Section 58 allows frames, under certain conditions, to be set flush with the outer face of walls. With regard to the

projections of stone cornices over public ways (Section 73), it is an advantage that they are limited, for, with the tendency of stone to decay in our London atmosphere, a cornice, however well set, may become dangerous through a flaw in the stone not being perceived, whilst cornices of ample projection can be put, provided they are over the owner's forecourt. As to flush window frames, though giving a pleasing appearance by the area they allow for painting in light colours, their tendency to decay unless frequently repainted, and the additional cost of repainting, will probably prevent their becoming general.

Section 74 requires that every building of 10 squares in area, used partly for trade purposes and partly as a dwelling house, shall have such two parts separated by walls and floors of fire-resisting materials. The area, it should be noted, is only that of an ordinary corner shop in a main road: a 25 ft. frontage by 40 ft. depth gives it. So in future all good shop premises must have the first floor of, and the stairs up to it enclosed by, fire-resisting materials. This is, undoubtedly, a gain. Had such been the law in the past there would have been fewer fatal fires. It should be noted that this will, by increasing the cost, tend to prevent the adding of small shop to small shop, as has been so often done by tradesmen, especially drapers, of late; for, when two houses are united (Section 77, Sub-section 2), they must together be in conformity with the Act, as if they formed one building. Hence, in future, any two shops, unless quite small—under 5 squares each—must, to be united, have fire-proof floors put in over them, and the staircases must be enclosed in fire-resisting materials from the ground to the first floor. Some points requiring nice adjustment will also probably arise through these provisions, *e.g.*, what constitutes a trade on the first or upper floors. Would a milliner's business? If a tailor has "trying-on" rooms on the

first floor, or there is a dressmaker's on that floor, must the second floor be fire-proof, and the staircase to it be enclosed in fire-resisting materials? It will be at once perceived that shop property will be largely affected by these regulations, for they will cause large businesses to be carried on chiefly in premises built for special and distinctive trades. It will be less easy to fit any business into any ordinary premises. It would have been preferable had a definite minimum thickness been specified for the fire-resisting enclosing walls.

There may be doorways from the enclosed staircases, passages, and landings into the different parts of the building, and there may be openings in any walls of such buildings provided they are fitted with fire-resisting doors, which may be of hard wood not less than 2 in. thick.

Are counting-houses and offices "habitable" rooms within the meaning of the Act?

It may be said that in excepting them in Section 39 from Part 5—that is, the part dealing with open spaces and height of buildings—the Act does direct they shall be treated as parts of domestic buildings, and as "habitable" rooms throughout the rest of the Act. Section 5, Clause 38, runs :— "The expression 'habitable,' applied to a room, " means a room constructed or adapted to be inhabited," and Clause 37 states :— "The expression 'inhabited,' applied to a " room, means a room in which some person passes the night, " or which is used as a living room, including a room with " respect of which there is a probable presumption (until the " contrary is shewn) that some person passes the night therein, " or that it is used as a living room."

The superintending architect, in not excluding, may be taken to include, counting-houses and offices when he "states:—Under definitions 37 and 38, a 'living room' is a "habitable room, and is therefore subject to the restrictions

“contained in Sections 45 and 70. The following should “not be regarded as living rooms:—Scullery, wash-house, “store-room, pantry, larder, glass-closet, beer or wine cellar, “w.c., lavatory, bath-room.”

But there is more to be said before including all counting-houses and offices among living rooms. Section 70, Sub-section c, states:—“Every habitable room shall have one “or more windows opening directly into the external air, and “into a conservatory, &c., &c.” Throughout London there are glass-covered courtyards into which vehicles are drawn, and loading and unloading takes place. Around such are the goods clerks’ offices, many of them not merely “booking-boxes,” but offices with fireplaces and accommodation for a staff of clerks. Are such now prohibited, or can the term “conservatory” be stretched to include such covered yards? The covered courtyard of the Royal Exchange is another instance of this arrangement, yet, if the Act is to be taken literally, it will be illegal to light offices from the space under such a roof. There is no appeal to the Tribunal with reference to this matter.

Section 47 prohibits the erection of any building—other than a church or a chapel—to a greater height than 80 feet, exclusive of the two storeys in the roof and of architectural features; with the exception that, if before this new Act became law any proposed building was contracted for, it might be erected, or any existing buildings so contracted to be heightened, might be raised, up to the height of 90 feet, exclusive of two storeys in the roof and the architectural decorations permitted by the London County Council’s General Powers Act of 1890, previously in force; with an exception also in the case of rebuilding, to the same height as at present, any building existing at the time of the passing of the Act, and in the case of raising to a height equal to that of a block already built (although such height be

greater than the said prescribed height) a building belonging to the same owner.

Section 48 gives the Council power to exempt from the above limitation of height; but in that case an appeal to the Tribunal is allowed to any owner or lessee within 100 yards of any building proposed to be so exempted.

Section 49 prohibits any building on the side of a street, formed or laid out after the 7th of August, 1862, and of a less width than 50 feet, being raised, or a new building erected, so that the height shall exceed the distance from its front or nearest external wall to the opposite side of the street. There is no limitation to height—so far as the width of the road is concerned—of any building abutting on a road formed before the 7th of August, 1862.

In the case of a corner building abutting on more than one street, the wider street may be taken to be the one that regulates its height, and that for a distance of 40 feet from the corner, unless the Council object. Provided that any building erected or raised before the commencement of this Act, to a height to which no objection could have been taken under any law then in force, may be re-erected to its existing height, although exceeding the height provided in this section.

Section 150 is a provision the want of which has long been felt. It enables a builder or building-owner who is desirous of erecting a new, or altering an existing, building in such a manner as he fears may be considered to be in contravention of this Act, to test the same by sending a notice of such proposed work to the district surveyor; and if such builder or building-owner is dissatisfied with the district surveyor's decision he may, within fourteen days of the date of his notice of objection, appeal to a petty sessional court, who may make an order affirming the objection, or otherwise. The gain to the general public by avoidance of loss of time and uncertainty is immense.

In conclusion, may I ask the Members present to regard the discussion to-night as not intended to be merely on the few points here enumerated, but on the whole Act? Those dwelt on have been selected only as suggestions for starting a discussion. Each speaker will probably deal with those sections he has most closely marked. The attainment of a complete acquaintance with all the workings and consequences of the Act will, doubtless, occupy some of us for a considerable portion of the rest of our professional lives. But there is an advantage to be gained by the interchange of ideas at this early stage; we may the sooner appreciate the bearings of the measure, note its weaknesses, and be prepared for the difficulties which will arise.

Mr. T. M. RICKMAN (Fellow) said he rose to propose a vote of thanks to Mr. BLACKBOURN for the Paper in which he had so ably dealt with a very interesting question. The subject was a very wide one, and it was yet a little early to discuss too minutely the details of the Act, for time only could prove how it would work. He thought the writer of the Paper had brought forward a number of the most salient points in which the Act differed from previous ones, and the discussion of those points would do something towards shewing prominently the special characteristics of the new Act. The course taken by the London County Council, in passing this Act through the Legislature, was a curious one, and had, he regretted to say, involved the expenditure of a very large amount of time and attention on the part of the three gentlemen mentioned by Mr. BLACKBOURN; but he considered it a very fortunate thing indeed for the Institution that three Members of such special aptitude and experience were ready to step into the breach, and to give the time necessary for fighting in detail a great number of the

proposals put forward by the London County Council, but eventually dropped by them. What this determination to amend the Act had cost the Institution all present knew; but the question was, how much the working of the Act would cost those who had to deal with it in future, namely, the litigants and the County Council. At the present moment he believed there was no scale of fees put forward; but he gathered that litigants would have to pay very appreciable fees in order to bring their cases before the Tribunal of Appeal, and he supposed that the difference between those fees and the costs of the Tribunal (which would be very considerable) would be an addition to the rates.

He considered it very desirable that the decisions of the Tribunal should be published and registered, and that it would be very serviceable to have a complete register of such decisions in the "Professional Notes" of the Institution. It would also be useful, after registering the decisions, to keep a register of the various faults found in the Act. He supposed that the experience of the members of the Tribunal of Appeal would before long enable them to make many suggestions for amending what was in its present form a somewhat tentative Act, from which other new amendment Acts might most likely spring.

He thought the order in which the Act was framed was somewhat confused. He had read it through two or three times very carefully, and each time he had been puzzled to know what would be the next subject dealt with. No doubt there was a principle underlying this apparent want of order, but he thought that the old Act was more in order and more intelligible than the new one.

Section 41, Sub-section 4, which dealt with the light-and-air question, provided for a reference to the Tribunal; but was he looking forward too far when he suggested that

such a Tribunal of Appeal, dealing specially with building cases, might be allowed by the Legislature, at some future time, to have wider general powers than were conferred upon it by this Act? It seemed to him that such a Tribunal, appointed in the way in which this was, and consisting of gentlemen accustomed to deal with such cases, might have powers of arbitration conferred upon it, if not by special Act of Parliament, at all events, by litigants who had difficulties to settle. When such a Tribunal was firmly established and found to be serviceable, it might, he thought, deal generally with arbitration on building matters, and thus, with some such regulations as he believed were in preparation for bringing Orders of Court, and so on, before it, be of assistance in checking litigation and encouraging arbitration in building disputes.

With regard to rights of light, he did not know that the County Council took any special powers. Access of light and air was another question. The Superintending Architect and the Tribunal of Appeal would, no doubt, carefully consider any building scheme brought before them and would see that the rule as to light was properly applied. All such matters in the case of a well-ordered estate were arranged by the surveyor to the estate, but in a badly ordered London district, where there were a great many individual and separate properties, they must be considered, and, he had no doubt, would be properly arranged by the architect and by the Tribunal of Appeal.

In his Paper, Mr. BLACKBOURN had drawn attention, and very rightly so, to the increased cost which many of the new regulations would entail in respect of buildings, not necessarily of the lower class, but houses let at, say, £50 or £60 a year. It must be considered, in the carrying out of those buildings, if it had not been considered in the laying down of the rules under the Act, that there were large districts

where the land was not worth more than one-fifth of the total cost. In the outlying parts of London the ground rents did not exceed one-fifth of the total cost, but it must be remembered that the Act applied to districts where the land was worth in some cases two-thirds or more of the total cost of the land and of the buildings placed upon it. In such cases more expensive construction must take the place of additional space. He believed it would be found, where a contracted site had to be built upon, that, if expensive buildings and superior materials and better construction were adopted, a certain number of regulations which were in the Act for providing open spaces to the buildings would be unnecessary. He thought that, after a few years, it would be found, in dealing with buildings with modern appliances, good construction, good sanitary accommodation, and so on, that the rules as to space and as to light and the diagonal line would have to be modified to a certain extent.

With regard to the adaptation of old buildings for new purposes, he supposed that, in course of time, it would appear how far the rules would, in practice, be modified by the County Council, who, he thought, would need to have a strong committee for the purpose. The superintending architect would not be able to do everything; but the Council themselves would have to deal, by means of a committee, with questions of the application of strict rules to such matters as the adaptation of old buildings. These were all points which he thought would come to be more clearly understood and defined by experience of the working of the Act.

There were a number of instances which he had noted in which he thought that the wording of the Act did not exactly convey the meaning which its authors intended it should, and which ought to be made clear if it was to effect any material good; but he did not wish to occupy the

time of the Meeting with reference to these less important details.

Mr. H. H. COLLINS (Fellow) said he had much pleasure in seconding the vote of thanks to Mr. BLACKBOURN, and in congratulating him upon the self-restraint which he must evidently have exercised in writing his Paper. He knew how easy it was to criticise almost every detail of an Act, and how difficult in writing a Paper to confine one's attention to the salient points. He would follow the good example of the author, and allude briefly to the points which he thought most called for the consideration of the Meeting.

A very important question was involved in Section 212 with regard to contracts. That section, thanks to the Institution, now assumed a very considerably modified form compared with the somewhat unfair proposals originally put forward, and had, in fact, been so much toned down as at last to have become almost inexplicable, and likely to necessitate many calls for the assistance of legal members. The County Council had authoritatively communicated with the District Surveyors, and had directed them how to read the Act. He did not know whether they had power to do anything of the kind, but, at all events, with regard to Section 212, they had taken upon themselves to lay down what was the meaning of the word "contract." Dr. LONGSTAFF had said that the County Council had taken Counsel's opinion upon the matter, and he supposed that opinion might be accepted as so far governing the case. It was said that a distinction had to be drawn between a "building contract" and a "building agreement," and that by the latter was meant merely an agreement between a ground landlord and an intending lessee to take certain lands, and to build within a certain time certain houses of a value probably specified

in such agreement; but that by a "building contract" was meant a contract between a building-owner and builder, by which the latter contracted to build certain houses upon the building-owner's land at a stipulated price, and upon specified terms. Those who had read the Act knew what value to put upon that opinion, and upon Section 212. He certainly thought that the section, if not very widely and liberally interpreted, would cause an immense amount of trouble, and inevitably lead to much litigation.

He would like to have more precise information with regard to corner sites. Section 22 defined the lines of building frontages, and said that no building was to project beyond the line of frontage within so many feet of the road. But he wished to know what exactly was meant by a corner site. He was, of course, aware that if a house had already stood on the site there was no difficulty in the matter.

He congratulated himself upon having considerably influenced the section dealing with the separation of trade premises from a dwelling house, for the point was first brought prominently forward at the time of GARROULD's fire in the Edgware Road, when he gave evidence upon the subject. The press having taken up the matter warmly, the County Council had proposed a clause which he thought a very beneficial one, but one rather difficult of comprehension. The section required that where a part of a building was used for trade purposes it should be shut off from the upper part by fire-resisting material; and, as he read it, not only the approaches to the stairs, but the enclosure of the stairs, and the stairs themselves, and the passage way to the shop, would have to be enclosed. The author of the Paper regretted that there had not been some minimum thickness laid down for such enclosures, but he (Mr. COLLINS) was glad that nothing of the kind had been done, because the only object of the

section was to make a building fire-resisting, and if it was possible to get a partition two inches thick, made of fire-resisting material, where space was of great value he thought one ought to be allowed to adopt such a method.

Then came another question. Suppose the upper part of a house were used as a workshop (and there were a great many such houses in the East end of London) he took it that the workshop would have to be shut off by a fire-resisting floor, and that the whole of the staircase from top to bottom would have to be constructed of fire-resisting material. If a house had to be converted to such a purpose, the staircase would have to be taken out and the approaches made of fire-resisting material. This, he thought, a very proper way of procedure, though perhaps expensive.

Section 43 of the Act involved, he thought, a very interesting point. It would be observed that the section mentioned the word "land," and he wished to ask what was the meaning of it. He took it that, if the whole of a site were at the present moment covered by a domestic building, although it might be found insanitary and improperly constructed, yet permission was not required to cover that land to the same extent as before, and not only to do this, but to go up to the 80 feet in length as provided by the Act. He had asked the opinion of gentlemen, whose names, if he were at liberty to mention them, would command attention and respect, upon this point, and their opinions in the main coincided with his, although he was bound to say there was some difference as to exact details.

Then came the question of "habitable" basements. The Act said that there might be made an area at the side or in front, and so on, but he contended that, if there were a good front area returned round the side, there was no occasion to have one at the back.

He thought all practising architects and surveyors would do their best to loyally carry out this Act, and to recognise the value of the efforts, not only of the County Council but also of the Council of the Institution, towards making the measure a good sanitary Act, and one for the benefit of the community at large. He would, however, like to point out, what had apparently escaped attention, that the levels of mews were often varied. Mews were sometimes built at a very low level, as compared with the street in front, and sometimes were at a considerably higher level, and this would render it difficult, so far as he could see, to fix the horizontal line.

With regard to the angle of $63\frac{1}{2}$ degrees, he thought that provision would lead to very bad building, and would in many ways be evaded by builders in order to avoid the expense to which it would put them. Quartering covered with slating would often be employed instead of good brick walls. He thought that Section 59, Sub-section 2, would enable builders to execute work as suggested.

As to the numerous provisions for artisans' dwellings he would not say much at present, because he hoped that with the advent of March a different state of things and opinions would prevail at the County Council. He thought, however, that many of the provisions of the Act in this respect were calculated to defeat their own object, and he agreed with what Sir JOHN LUBBOCK had said recently, namely:—
 “In the matter of workmen's dwellings the Committee
 “of the Council having charge of it had defeated the
 “very object they had in view. By buying up property
 “and building dwellings instead of compelling owners to
 “keep their property in decent condition, and assisting as
 “far as possible the Industrial Dwellings Companies, they
 “had offered a premium to bad landlords, besides in-

“creasing the rates and diminishing the number of workmen’s dwellings.”

Even while the Bill was in process of passing into an Act he had occasion to consult with clients as to sites for artisans’ dwellings, and had found that every one of them, in view of the great restrictions contained in this measure, and of the time that would be lost in obtaining the sanction of the County Council, had declined to have anything to do with such sites. Plenty of sites were going, and would continue to go, begging, instead of having erected on them houses for the artisan class. Thus the very opposite to what was contemplated by the London County Council was actually taking place. It was only another way of raising the rates indirectly.

He thought that offices were certainly not “habitable” rooms, and that something like common-sense should be used in construing the Act in this respect. Because there happened to be a fireplace in a room, it did not necessarily follow that it was a “habitable” room, adapted for sleeping in. He felt sure that the Tribunal would deal with that matter from the same common-sense point of view from which they would regard all practical questions submitted to their decision.

Mr. J. DOUGLASS MATHEWS (Fellow) said that the way in which the Act under discussion had been carried through had been alluded to as somewhat novel, but he could not help thinking that, after all, the result was satisfactory. It had been a very difficult one to frame, considering that it was an Act revising and codifying what had been law for 40 years, and bringing it up to date, and he thought the County Council were to be congratulated on the way in which they had taken the matter up and had consulted

those who were best able to deal with the subject. The Act, as passed, was very different from the original Bill, and was now a practical measure. There would, he thought, be less friction if the County Council adopted a similar course in dealing with some of their other schemes.

Everyone interested in building property or building enterprise owed to the Council of the Institution great thanks for the public-spirited way in which they had dealt with the matter, and for the labours which had resulted in making the Act a practicable working measure.

With reference to some of the points to which Mr. COLLINS had referred, no doubt Clause 74, relating to the division of buildings, would lead to a considerable amount of difficulty, and, good as the idea of it might be, he was afraid that its working would be attended with much hardship to a good many shopkeepers. The case to which Mr. COLLINS had particularly referred was one in which a tradesman wanted to increase his shop accommodation. He had a house with an area of about 8 squares, and he wanted to increase his shop area on the ground floor by about four squares. At present there was no private entrance, staircase, or passage, and the difficulty was how to get the required 12 squares without making a fireproof passage and staircase and floor. The architect, in order to get out of the difficulty, had suggested that the back wall should be carried through the ground floor and basement, and that openings should be made in that wall; treating it, in fact, as a party-wall. He (the speaker) as a District Surveyor could not see his way to allow that course to be taken, because it was, practically, making two distinct buildings, the building behind being joined to the front building, but having no direct entrance, and being, therefore, not in accordance with the spirit of the Act.

That was the sort of case which was likely to arise constantly. The tradesman in question was a grocer, whose family lived over the shop, and the future state of things would be very much the same as at present, with the exception that the ground floor would be, to a small extent, increased in area. It was no doubt difficult to meet all cases satisfactorily, but this clause, as Mr. COLLINS had said, was greatly the outcome of the inquiry into the fire in Edgware Road, when several persons lost their lives. But if the recent fire had taken place before this Act was passed the requirement would probably have been that the roofs of all projecting shops should be fireproof. If such a means of exit were provided for the inmates of the upper part of a house, he thought it would probably have met the requirements without the difficulty and expense involved in carrying out the provisions of the Act.

In so large a city as London it was desirable that the controlling body should have the power of extending or modifying the rules of the Act on certain occasions as it thought fit, and he was glad the County Council had that power in many cases. Speaking as a District Surveyor, he was very much surprised that the fees of the District Surveyors should have been allowed to remain practically as before. The County Council had taken immense pains to schedule fees of various kinds, but, notwithstanding the complaints made as to the large fees charged for small alterations, the same thing occurred under the present Act. District Surveyors had, he thought, generally dealt with the fees according to the nature of the work, and when the alteration was small had charged small fees instead of the maximum fee allowed by the Act. He hoped, and felt sure, that they would continue to meet the public fairly and equitably.

Mr. W. WOODWARD (Fellow) wished to express his personal thanks to Mr. BLACKBOURN for his Paper, and to congratulate the Institution upon the improved appearance of the Act as compared with the Bill as it first emanated from the London County Council. Although it had cost the Institution some hundreds of pounds to effect the ablutionary process, he was sure it would be agreed on all hands that the Act had come back a healthy one and well worth the money expended upon it. Many excellent alterations had been made, as, for instance, in the clause which would have rendered it necessary that lifts should be enclosed by nine-inch walls, supposing them to have an area of ten feet. He was glad to find also that on sites previously built upon, abutting upon old streets, it would be possible to build over the whole of the ground floor area.

With regard to the Tribunal of Appeal, although he agreed with every word that had been said as to its members, he thought that it would have been additionally valuable had there been added to it a member of the Builders' Institute. Builders had a very great interest in the administration and working of the Act, and he certainly thought that one of the eminent members of the Builders' Institute would have been a useful addition to the Tribunal.

He thought that the London County Council were to be especially congratulated upon the permissive clauses, which were among the best features of the Act. It now only remained to see the practical working of the Act, and he was sure that all who had difficulties to contend with in the past would bring their experience to bear upon the present Act, in order that any obstacles in connection with its working might be overcome more readily.

There was one subject to which, above all others, he wished to draw attention, for it affected the *bona fides* of

the London County Council. Mr. COLLINS had referred to Section 212 of the Act, and, if he might be permitted, he should like to read an extract from it. The section said:—
 “Notwithstanding anything contained in this Act, a
 “building, structure, or work which has been commenced
 “before, and is in progress at, the commencement of this
 “Act, or which is to be carried out under any contract
 “entered into before the passing of this Act, may be com-
 “pleted subject to, and in accordance with the provisions of,
 “the Acts relating thereto as in force immediately previous to
 “the passing of this Act.” That meant, in fewer words, that if a building-owner could get in a little concrete and a few feet of brickwork on or before December 31st, 1894, it would be the commencement of a building, and that building would, therefore, come under the provisions of the old, and not of the new Act. Many building-owners had taken advantage of that clause (no doubt quite within their rights), had put in a very small quantity of concrete and brickwork, and were, therefore, able now to work under the old Act.

In all the discussions which had taken place in that room, and at the Royal Institute of British Architects, the clause in the Act relating to the angle of $63\frac{1}{2}^{\circ}$ had been defended by the representatives of the London County Council on the ground that it was intended that the health and the well-being of the working classes, with open spaces about their dwellings, should be the first consideration on the part of any municipal body. The London County Council had themselves taken five sites in Macklin Street, Drury Lane, for the erection by the Works Committee of artisan dwellings. Before the 31st December (he believed within 14 days), the County Council rapidly placed upon each of those sites a small quantity of brickwork. This fact he knew by personal observation. The

small pieces of brickwork were about 8 ft. long, and had been covered up with boards to protect them from the frost. He ventured to assert (until contradicted) that the only object of the County Council in putting down these pieces of brickwork on their own sites, to be erected by their own Works Committee for the benefit of the artisan, in whose interest the work was professedly carried out, was to evade the provisions of their own Act. If that were so, he hoped that the matter would be brought before the public in a very forcible manner, or, if not, that he would be corrected and told that the five pieces of brickwork, of which he had spoken, had not been placed there in order to evade the Act, but for some more legitimate reason.

Mr. G. M. FREEMAN (Associate) said he thought—indeed he felt sure—that the details of the matter in Drury Lane had been rather overstated, and would, on examination, bear a very different complexion. Departing from that matter, which was not within his own province, he could not but notice with extreme gratification, inasmuch as he had borne some considerable part of the labour of getting the Bill through the Committee, that the writer of the Paper and all the speakers who had followed him had really no serious criticism to make against the measure as it at present stood. When it was remembered what the Bill originally was, what care and thought was expended upon it, he thought it a matter of very great satisfaction that during one Session of Parliament, and before one Committee, the Bill had been got into such a shape that practically there was hardly any opposition to it in the second House. No one was in a better position to recognise, and no one more cordially acknowledged than he did, the immense amount of assistance afforded by the Institution, and he frankly

admitted that, but for that assistance he believed the Bill would not have passed at all, or, if it had passed, would not have been a practicable and useful Bill. He must also say, and he thought he should not be contradicted, that Mr. NICHOLS, Mr. GARRARD, and Mr. STEWARD had rendered most useful assistance, which was received with cordial thankfulness.

Turning from the history of the past, he wished to consider the prospects of the future. He had come to the Meeting rather to learn than to comment, but, the Bill having now become law, it was time to consider how it would practically affect the various questions likely to arise. It was said, and no doubt rightly, that several matters must even now arise which would have to be decided by other means than by mere friendly arbitration, but he rather doubted the necessity for the suggestion of the writer that it was essential that the Tribunal should be State-supported or State-aided. He thought there had been a good deal of exaggeration as to the amount of work which would be thrown upon the Tribunal. Perhaps in the first year or two a good many questions would arise; but when general principles had been laid down, he thought its labours would be very light. He could not understand why such a Tribunal, as was anticipated, should not be self-supporting, and why the fees charged should not be reasonably high. The effect would be to discourage petty, harassing, litigation, and he thought the expenditure should, to a certain extent, be proportionate to the benefits received. Exactly the same question was constantly being raised with regard to Private Bill legislation; but experience had taught that it was inexpedient that this should be made too cheap.

He noticed on page 136 of the Paper the following passage:—"The much-condemned proposal in the draft

“Bill to give the Council power, if they so desired, to insist
 “on new roads being, for the public good, made over 40 ft.
 “and up to 60 ft. wide, at the landowner’s expense, has
 “now happily disappeared. The greater width may be
 “required, and rightly so, but compensation must be given.”
 That statement was a little misleading as it stood, because
 it was only in some cases that compensation had to be given,
 namely, in cases where the land was occupied by houses or
 had been so occupied seven years previously. A provision
 had been tacked on to the clause which rather puzzled
 everybody, for nobody had asked for it, and nobody quite
 understood why it was put in, but the Chairman of the
 Committee of the House of Commons had insisted on
 adding to this section the words “or market gardens,” with
 the curious result that, if land had been occupied by houses
 or vegetables, compensation could be claimed, but not if it
 had been laid out as a building estate. It was a little
 startling, but no doubt it was a wise provision.

The writer of the Paper seemed to think that there
 would be some difficulty with regard to the formation of
 crescents, which he looked upon as open air spaces, but he
 (Mr. FREEMAN) would like to call attention to the fact that
 there was nothing in the Act binding upon the Council.
 It merely said “they might,” and there were the further
 words added, “subject to consideration,” which was an
 additional safeguard in that respect. The intention was
 that, as a general rule, there should not be a little street
 made, coming back to the same street from which it started,
 but that there should be ample provision for through passage
 of air and light. But where a special case could be shewn,
 either the Council would adopt a reasonable construction of
 the section, or, if they did not do so, the Tribunal of Appeal
 might step in.

Then came the question with regard to Section 41, which had been dealt with by Mr. BLACKBOURN. When that section was introduced the subject under discussion was the case of a large building being suddenly erected in close proximity to small buildings, and affecting their light and air in an unreasonable way, and the clause was inserted in the Bill, not for the purpose of dealing with technical questions, but in order to preserve, as a broad and general rule, a free passage of light and air, and to prevent a small house being dominated by a new and large building put in unjust proximity to it.

Then on page 139 of his Paper the writer dealt with Sections 42 and 43, and said: "Sections 42 and 43, dealing with spaces for more light and air around dwellings for the working classes, seem scarcely likely to benefit those classes, unless such buildings are erected by public bodies." He (Mr. FREEMAN) would point out that the writer had not drawn attention to the fact that the limitations of the powers of the Council regarding these matters, in cases where artisans' dwellings were erected away from a road, were not greater than they were with regard to those fronting on a road. The sole effect of the provision was that, while certain rules were not to be broken in the case of buildings facing roads, away from roads certain relaxations might be made, and that seemed to him to be a very fair and reasonable provision. It would, no doubt, be within the recollection of Members present that when those sections were passed there were a number of models before the Committee, not only models produced by the County Council, but by eminent gentlemen who represented some of the large landowners in London, and those models, no doubt, conveyed a great deal more to the minds of the Committee than any amount of verbal evidence.

A good deal had been said about trade premises and the isolation of buildings. The clause with regard to these was in a form arrived at only after days of discussion between the representatives of the great estates and the district surveyors, and everyone with any experience in the matter approved of it.

To judge from the tone of the discussion, the whole of the clauses commended themselves to those present, although there might be certain subtleties in them which affected the judgment of some of the speakers.

On page 141. of the Paper he thought that the writer had expressed some groundless apprehensions with regard to the question of offices coming within the class of habitable buildings, and that, when he read the Act carefully through, he would not have the smallest doubt in his mind that offices could not come in any way within the term "habitable rooms," but that the definition absolutely excluded them.

With regard to Section 48, which dealt with the question of height, the writer had said:—"Section 48 gives " the Council power to exempt from the above limitation " of height; but, in that case, an appeal to the Tribunal " is allowed to any owner or lessee within 100 yards of " any building proposed to be so exempted." He thought every owner of property in London would cordially support that clause, and consider it to be exceedingly wise.

There was but one other matter with which he wished to deal. He really could not understand the difficulty which had been raised as to the interpretation of Clause 212, and the meaning of the word "Contract." He should have thought it was one of the few words the meaning of which all would have agreed upon. What was intended when the Act was passed was, that no clause should

be brought into it which would operate as *ex poste facto* legislation, and that, where a *bonâ fide* contract could be proved, the arrangements come to were not to be upset simply because of the passing of the Act. But, on the other hand, the clause was not to be rendered inoperative by some vague suggestion of an agreement which might very easily be made between a sharp builder and a not over scrupulous owner of land.

The vote of thanks having been put and carried unanimously, the discussion was then adjourned.

AT

THE ORDINARY GENERAL MEETING,

Held on Monday, February 4th, 1895.

DANIEL WATNEY (VICE-PRESIDENT) IN THE CHAIR.

The discussion on the Paper read at the last Meeting by HENRY BLACKBOURN (Fellow), entitled "A Short Paper on the London Building Act, 1894," was resumed by

Mr. A. R. STENNING (Fellow), who said he thought that, although the author of the Paper had dealt with many of the principal points in the new Building Act, it was early days to criticise the measure, which, as time went on, might, or might not, be found to provide for every contingency which an architect, surveyor, or builder could suggest. At the same time, the Act was, he believed, admitted on all hands to be a good one, so far as it went, and great credit was due to the County Council for having carried it through as they had done, and to the Counsel engaged for so ably conducting it through Committee. He could claim to speak with at least some authority, after having spent several days in the Committee Room. Counsel for the promoters of the Bill had taken advantage of every point of weakness on the part of the opposition, but, recognising the value of the practical advice given by the Members deputed from The Surveyors' Institution, the County Council had in almost every case accepted their suggestions, and had shewn their appreciation of the soundness of their views by calling two of them before the Lords' Committee to support the County Council's proposals.

The principal portions of the Act for present consideration were, he thought, Parts 2 and 5. The former dealt with the formation and widening of streets, and its provisions were, on the whole, good. The alterations made in the Bill, as first brought forward, had been modified very much indeed ; but on one point he should like to say a few words, and that was about direct communication between streets. This was very severely fought in Committee in both Houses. He (Mr. STENNING) was called as a witness in the House of Lords, as was Mr. BALFOUR, representing the Duke of WESTMINSTER, and Mr. BLASHILL, representing the County Council. After giving the best evidence they could, viewing the matter in all its important bearings, the Committee asked the parties to withdraw, and the Chairman then gave his decision. This decision was, he thought, very important, and one which should be recorded in the "Transactions" of the Institution, and, therefore, with the permission of the Meeting, he would read Lord CROSS's words, as follows :—"The Committee have considered this "matter carefully. Neither the Act of 1892, nor this Bill, "makes it illegal to do this ; all they say is, that if a man "chooses to lay out in this way without communi- "cation with the streets, he must get the consent of the "Metropolitan Board (or, now, of the County Council). Then, "if it had rested there, I think the Committee would have "been in considerable doubt as to whether they should leave "it in that way ; but the Bill provides a Tribunal of Appeal, "which will certainly keep the County Council in order, and "if the County Council refuse unreasonably, you may rely "upon it that the Tribunal of Appeal will see justice done. "That being so, we think this sub-section may remain as "it is."

He thought that had an important bearing on the matter, and that the Tribunal of Appeal would consider it

when they had before them questions under by-laws or sections dealing with communication between two streets.

It was, of course, argued—and reasonably—that for the public good there should be through thoroughfares, but, if that were so, there ought to have been added to the section some such provisions as those of MICHAEL ANGELO TAYLOR'S Act, that so when property is taken a fair sum may be paid for it.

The objection generally was that the adjoining owner, knowing there were difficulties, endeavoured to make as much as he could out of them, and that in some cases it was impossible to carry out the original intentions of the Act, but with a provision of the kind he suggested he thought the case would have been fairly met. All that could now be done was to wait and see how far the matter could be regulated by the Tribunal of Appeal.

With reference to Part 5, Section 41, dealing with the angle of $63\frac{1}{2}$ degrees, a good deal had been said, but he thought its working would not be found so hard as at first sight appeared. He had taken the trouble to work out one or two diagrams before giving evidence as to its effect, and he found that for small property (and the section clearly only dealt, in the first instance, with streets which were not at present laid out) any owner laying out a site could now make ample provision for working to the prescribed angle. Though this might take a little more land he thought it would be for the public good, and he found that it was quite possible, on a plot of land 62 or 63 feet deep, to erect, within the angle specified, a building like many of those in the suburbs, with a frontage 15 or 16 feet wide, and as high as was now usual.

He had in his mind a building with a small fore-court, a main building of about 25 ft. deep, with back addition 22 ft. deep, and the statutory 10 ft. behind.

An angle of $63\frac{1}{2}$ degrees, taken from the horizontal line at the ground level from the back of the 10 ft., would cut off a very small part indeed of the roof of the back addition.

As for an angle of $63\frac{1}{2}$ degrees on a site about to be laid out, he did not think there would be much difficulty.

He did not think this Act was as good, in that respect, as the 1882 Act, which made provision for light and air at the back of the buildings; but the Committee thought otherwise, and had allowed this provision to stand. He thought it would lead rather to more than to less crowding.

With regard to the next section, which dealt with the angle of $63\frac{1}{2}$ degrees on sites already built upon, and in streets already laid out, he did not think there would be much hardship, because the horizontal line was then to be taken as 16 ft. above the ground line, and thus the whole of the ground-floor space could be covered. Then, if an angle of $63\frac{1}{2}$ degrees were taken from the extreme point, and the main building was set back 15 ft. (which was not a great depth for a back addition in the case of business premises), the remaining part of the building might be something like 30 ft., which gave almost the height of three floors, with level ceilings, before it was necessary to set back the roof.

He did not think there would often be any need for a series of roofs stepping back as had been suggested, or that this section would entail any great hardship on building owners.

On page 138, the author of the Paper referred to Section 41, Sub-section 4, Clause b, which he appeared to think involved the interference of the County Council with the complicated legal question of the rights of light and air.

In that section the Council took power to permit buildings at the rear 30 feet in height, provided that they be "satisfied that such buildings shall be so placed as not to

“interfere unduly with the access of light and air to “neighbouring buildings.” He did not think this interfered with anybody’s right to claim their legal right to light and air, but only provided that if the County Council thought it advisable the provisions under this clause might be relaxed.

Section 42, which dealt with open spaces round buildings erected for the working classes, was, he thought, a very good one. The instances given by the County Council before the Committee were certainly very strong indeed. Models were produced shewing buildings quite close together, without even the ordinary angle of 45 degrees, and to many rooms the sun could not possibly get—only diffused light. Such buildings should be subject to some restriction, and in ordinary cases he did not think the section would act in any way harshly.

Section 45 dealt with light and air to courts within a building in a way which he thought would work satisfactorily. Many of the best modern building flats commanded good rents, although to the lower rooms there could come no particle of that light which was so essential to health.

On page 139, the author expressed a belief that there would be an increase in the cost of building owing to the extra thickness of the walls now provided for; but the cost of putting in a slight additional bit of brickwork would not be much, or at any rate would not increase the expense by 10 or 15 per cent. If the cost of the brickwork was a little more, the cost of timber and of other things was less than it used to be. The thing that would increase the price was the extra cost of labour, and he thought that the labouring classes would be the first to feel this increase in the shape of rent.

Then, on page 141, the author said:—“Are counting-

“houses and offices ‘habitable’ rooms within the meaning ‘of the Act?’” That exemption was put in at the instigation of the City representatives. They made a strong point of it, and contended that offices should be quite exempt from any of the provisions for light and air round buildings.

On page 140, the question of fire-resisting materials for buildings exceeding ten squares in area was raised. He thought that was a safe provision to make, and, from what Mr. COLLINS and Mr. MATHEWS said at the last Meeting as the result of their experience, the precaution now taken seemed not to be too stringent.

It did not seem necessary to go to the expense of fire-proof materials, for “fire-resisting” materials was the definition in the Act. This regulation must, of course, in some cases, appear very hard, and, as in the case mentioned by Mr. MATHEWS, a man might have to expend a considerable sum of money in carrying it out; but, if it resulted in a gain of safety to life, that should certainly be the first consideration, and whatever expense might have to be gone to must be taken to be for the general good. The provisions for construction in the Act were pretty fairly well up to date, but, as time went on, differences and improvements would, of course, suggest themselves.

With reference to the position of district surveyors, he much regretted that his colleagues had been unable to have a full hearing before the Committee on the question of their *status*. He felt very strongly that district surveyors ought to be kept up to the level of men of the first rank in the profession, and ought not to be fettered in the way the County Council now proposed. Judging from the circular which the County Council had sent round, they still wished to retain the regulation that a district surveyor must devote the whole of his time to the work of the district, and do

nothing else. He thought this would operate very badly indeed in the future. District surveyors were paid by fees, and, as one of that body, he knew what those fees were. One might start with the idea that he was to have £500 a year, but there was no guarantee of that £500 a year, for the fees varied. The fees in his own district ten years ago, when he was appointed, were over £1,000, but for the last four or five years they had not come up to £400 before expenses were paid. If a man were not to have more than that he was afraid it would lead to the district surveyorship being looked upon merely as a post suitable for anyone who would be content with £400 or £500 a year, and would take his chance whether it was more or less. He was sorry, therefore, to notice the tone which the County Council still maintained in the letter to be sent round to the various departments. District surveyors were now put in a more responsible position than under the Act of 1855. They had to decide many points which he did not say they were not able to decide, but which required a good deal of thought and care, and that experience which could only be gained by general practice and by constant intercourse with those of one's professional brethren who were dealing with these questions from all points of view. For a man to be simply, so to speak, a clerk, and tied down to attend to certain duties and to nothing else, would be very unfortunate, not only as affecting the status and authority of the district surveyors, but also the convenience of those who carried out works under their supervision.

With regard to the construction of Section 212, as to what was a "building agreement" and what was a "contract," there seemed to be a good deal of difficulty, but the point was really a legal one, on which some of the Members present would, perhaps, give the benefit of their advice. But he thought, taking the Act as a whole, as it

now stood improved from the crude shape of the Bill last year, it was an Act which could be worked. It would give a great deal of trouble, he thought, but that was inevitable and must be met. It would certainly add a good deal to the duties of surveyors acting for building owners, who would have a good pull out of it, for there were many things on which they must be called in more than in the past, and to the work and responsibility of the district surveyor, who, he was afraid, would not get much more in fees.

Mr. ALEXANDER PAYNE (Fellow) thought the history of the Act somewhat peculiar. When the Bill was first brought forward, a year ago, by the County Council, it was no exaggeration to say that everyone was aghast at it; for it seemed such a confiscatory measure, and so ruinous to owners, to surveyors, and to everybody else. But now he thought the general feeling was distinctly one of approval. This, he believed, was mainly owing to the fact that the Act had really been made workable and valuable by the opposition to it. All must approve the wise conduct of the County Council in taking the opposition into their confidence, and thus building up the Act on a basis agreed upon by all parties. The credit for the practical and workable value of the Act was quite as much due to the opposition as to the promoters. He thought that foremost among the opponents who had worked this improvement were The Surveyors' Institution, and another less-known society, the District Surveyors' Association. The latter, who were frequently consulted by the County Council about the Bill, had, as a body, the widest possible experience of the working of the old Acts, and many of the alterations suggested by them were put into the Bill.

He thought the Institution was much indebted to the

author for having brought the subject forward, for the Act was so complicated, and contained so much, that it would take most surveyors a whole lifetime to thoroughly master it.

The more it was discussed, the more it was regarded from all points of view, the better, and, as the author reminded his listeners, it was best to subject the whole Act to discussion, and not only to consider the points touched upon in the Paper. He thought that it might be useful, instead of strictly following the remarks of the author, to consider what had been gained by the Act and what had been lost as compared with the older Acts. What had they gained by this new Act? In the first place, he thought, conciseness. Instead of having half a dozen or twenty different Acts, all the law of Metropolitan building was now contained in one small convenient book. That was so obvious a gain that he need not enlarge upon it. Secondly, he thought a great deal had been gained by many important matters having been put directly into the hands of the district surveyor, instead of its being necessary to go to the Council and make formal application to get them approved. That was eminently the case with regard to furnace chimney shafts, bay windows, and oriel windows. Under the old Act it was necessary to prepare plans and to go to considerable trouble to make formal application to the Council, with the chance that, after perhaps two or three months, the application would be refused without reason given. Under the new Act, it was only necessary to go to the district surveyor and shew him what was wanted to be done, and in ten minutes he would decide whether he could pass it or not, and, if not, would give the reason for refusing. There was thus an obvious gain in time.

Then, again, open sheds gave rise to many troubles under the old Act, it being difficult to know how to deal

with them ; but now the district surveyor had authority to deal with open sheds if built to his satisfaction.

As to light and air in courts within buildings, he agreed with the last speaker that the new regulations would be of great benefit to the public, and would save loss of property. He remembered, a year or so ago, inspecting some flats in Victoria Street, where those at the top of the house commanded the highest rents, the price gradually decreasing as the lower floors were reached, until at last the lowest floor was obtainable for a very small sum. And why ? The reason was that, in the latter case, the rooms at the front and back were good light rooms, but all the rest, lighted and ventilated from insufficient courts, were little more than cellars. He knew, indeed, of some very fine buildings not far from the Thames Embankment, where it was notorious that from all the outer windows there was a splendid view extending for a great distance, but where in the rooms opening on interior courts it was impossible for the servants to live comfortably. The new law would be of great benefit in such cases.

But there were occasions where the law for air space in the rear of buildings would not benefit the people in whose interests it was presumably passed. Suppose a street having, about to be erected, domestic buildings on one side of it. The district surveyor, in carrying out the Act, would have to say, "You must set these buildings back in the rear " within the diagonal line prescribed by the Act for " domestic buildings, and so as to provide light and air " for this domestic building." Then, if in the next street, at the back, someone else designed to put up, not a domestic building, but a warehouse, the district surveyor must allow him to do so regardless of the angle laid down to insure light and air : thus the warehouse would block the light and air from the domestic building by its vertical wall, and

the domestic building would be set back within the diagonal line, for the benefit of the warehouse, which was certainly not what the Act contemplated.

Another gain under the new Act was the Tribunal of Appeal. Under the old Act, he was not over-stating the case when he said that some of the decisions in the Law Courts almost made the Act itself of no effect. There was a decision under the Act, by no less an authority than the LORD CHIEF JUSTICE, which, in effect, decided that one might rebuild a considerable portion of a building with very imperfect materials, such as place bricks, and mortar made of mud, without affecting its construction according to the Act. He supposed that nothing would prove the absurdity of such a decision until a portion of the building fell down and killed someone; then, perhaps, legal views might be modified on the point. He did not think a tribunal composed of practical surveyors would ever hold that one could rebuild a considerable portion of a building without its construction being affected; and he thought there was a great advantage in having surveyors, and not lawyers, to settle a point of that kind. The new law had wisely set a definite limit on the amount of work that could be done without notice to the surveyor.

Under this new Act, anyone wishing to have a record of old buildings before they were pulled down, could go to the district surveyor, and, by paying two guineas, could have a plan of the buildings certified, and the certificate would be conclusive evidence of their correctness, which was certainly an immense benefit, and might also bring some grist to the mill of Members of this Institution, for many surveyors would have to be employed in preparing such plans.

And now that he had reviewed shortly some of the advantages, he would like to say what appeared to him to

be the disadvantages, of the Act. He thought one very great disadvantage was the immense relaxation in the precautions against fire. He felt bound to predict a great increase of fires in London in the near future, and that they would not be kept within the same narrow limits as before.

One among those relaxations was the permission to bring all sash-frames and door-frames up to the outer face of wall, the necessity of setting them back in reveals being done away with. He did not think that, when this was passed, either the Committee or the London County Council realised what an enormous change was really involved. The burning sashes, in case of fire, would be free to fall outwards into the street, and more than double the surface of wood would be exposed. Besides that, wooden cornices and barge-boards to dormers were allowed under certain regulations which he could not regard as ensuring safety.

Then, what were fire-resisting materials? He knew that architects had long been of opinion that it was better to use stout oak posts and beams than cast-iron columns and iron girders, but to say that 2-in. oak doors were fire-resisting was quite another matter. How long would a staircase built up of 2-in. oak treads and 2-in. oak risers stand against a strong fire? The stepping back of the storeys under the diagonal of $63\frac{1}{2}$ degrees at the back of buildings would also probably greatly increase the danger from fire. In the case of a building on fire, it was well known how soon the flames rushed through the roof, and he thought that with such a construction, with a series of flat roofs, the danger of the spread of fire would be greatly increased.

This new Act would, no doubt, increase the cost of building, for rooms must be made higher and walls thicker, which would mean an increased rent, so that persons of limited means must live in smaller dwellings. He

thought there was no necessity for altering the schedule of thickness of walls under the old Act, which he had never heard complained of as being too slight. An old maxim which he firmly believed in was, "Let well alone," but it seemed to him that a certain section of municipal politicians prided themselves on not being able to leave well alone, but insisted that everything, whether good or not, must be changed.

The last speaker had alluded to the position of the district surveyors. He thought it very important, especially now that their powers and responsibilities were so much enlarged, that their status should be kept up. This Act, promoted and carried by the London County Council, made provision for district surveyors to practise as private architects, but the County Council had themselves made it a condition to new candidates that they were not so to practise, with the result that the number and the standing of new candidates was much reduced. Could anything be more inconsistent ?

Mr. P. E. PILDITCH (Fellow) said there appeared to be a general consensus of opinion to the effect that the Act, in its present form, was a very great improvement on the Bill to which the Institution had devoted so much time and attention about 12 months since, and he must say he was fully in accord with that opinion. In the first place the Act was, no doubt, less confiscatory than the Bill. There were several provisions in the original Bill to which the term confiscation might have been properly applied, but he thought they had gradually been got rid of, although there would probably still be some cases of hardship under the Act. In cases, for instance, of small buildings erected on sites somewhat shallow there would be no doubt, to the small owner, as well as to the large, a very great pecuniary loss.

He had himself designed a building just before the Act came into force. He hoped it would be erected in time to come under the old Act, but this was not the case, and, consequently, the building had to be altered, which meant that something like 10 per cent. or 15 per cent. of its value would be lost to the owner, who would have to set back his building, with no appreciable benefit to anybody (as there was a high public building at the rear to which the setting back of the house in question could be of no benefit), but much to his own detriment.

The last speaker made one observation which he was afraid might be slightly misleading. He said that one of the great benefits from the new Act was that all provisions relating to building were now contained within the scope of that Act. He thought this was hardly the strict truth, for the Act, although it was a consolidation to a very large extent, did not completely and in all respects consolidate the regulations relating to building. There were several provisions in the old Metropolis Management Act referring to building, which provisions were still unrepealed. It was still the law that a builder, or an owner who was about to build, must, entirely apart from all questions of drainage (which all came within the purview of the vestry), give notice to the vestry, though he was going to do nothing in the shape of drainage on the new site.

Again, the Metropolis Management Act of 1878, all the provisions of which relating to theatres and such buildings were outside the purview of the Act, and some of the provisions of the London Council (General Powers) Act, passed so lately as 1890, were not consolidated under this Act. There were also several important clauses as to buildings to be found in former Acts, and he should have been pleased to see the consolidation in the Act of 1894 applied to these matters.

There was one remark on page 139 of the Paper which he hardly followed, and which struck him as being somewhat too sweeping. The author said:—"The next three "or four years will see a rise of 10 or 15 per cent. in "the value of all houses of, or under, the value of £50 "annual rental, and building around London will for a "time be checked." He did not quite know what was meant by that. If it were meant that the exemption of existing houses from this Act would send the value of houses up in the market, he thought the author was looking at the matter through a rather too rosy coloured pair of spectacles. If he believed that suburban houses would go up in value 10 per cent. or 15 per cent., he (the speaker) would like to know the ground on which he founded that belief.

Several speakers had referred to Clause 212—that moot clause as to what buildings came under the new Act, and what under the old one. He supposed all present were interested in hearing the very clever speech on the subject, made by Mr. FREEMAN at the last meeting, and that all recognised its value in the light of the test case that recently came before the Bow Street magistrate. Mr. FREEMAN had taken a prominent part in that case, and he (Mr. PILDITCH) was very pleased that this particular point had been decided as it had been, though he supposed the case would be taken through two or three higher Courts. Not being a lawyer, he ought not, perhaps, to form a judgment on a legal point, but it seemed to him clear that the word "contract" could mean nothing else than a contract of any kind, and that it could not fairly be whittled down, as the County Council now appeared to propose it should be, to one specific and particular form of contract, to the exclusion of all others.

There was one point with reference to a clause dealing with the erection of industrial dwellings which seemed to

him to be somewhat of a mistake, and which he was sorry to see still in the Act, though it was certainly not one of very weighty importance. Section 51 allowed the industrial dwellings of local authorities to be rebuilt—he presumed in the case of destruction by fire or otherwise—under the old law. This he thought was a great mistake. Why should industrial dwellings, erected by local authorities, be in a different category from other dwellings? He thought this one of the provisions which would tend, in future, to prevent independent capital being applied to the erection of dwellings of the working classes, and, looked at from that standpoint, the principle was an unsatisfactory one. It was true the principle was not carried into effect to any very large extent throughout the Act. As a general rule he thought the Council had met the questions raised on various points in the Bill very fairly and equitably.

He should like further to refer to the clause relative to party walls, which had been modified and, he thought, improved very considerably. Many surveyors had probably little to do with buildings as architects, but a certain proportion of those who were not architects certainly had to deal more or less frequently with the question of party walls, and, although it was not necessary to go into details on that point, one could not help congratulating the County Council, and those who worked with them, on the fact that the question had received such full attention as it had. The law had been made much clearer in many ways, not only as to the form of procedure, but also in the exactitude of the definition as to what was a party wall or an external wall, and the various stages at which a wall became one or the other. The limitation of the time for notice was also an advantage.

Mr. WILLIAM EVE (Fellow) said he had come to seek, and not to impart, information, but a little difficulty had

arisen under this Act, out of which he should be obliged if some of the Members present would kindly assist him. He had an old building exceeding the cubical contents prescribed by the Act, namely, 250,000 cubic feet, and he wanted to make it larger. He knew that the first thing he had to do was to divide it into two, and to take care that neither part exceeded the 250,000 cubic feet after the desired addition had been made. Then came the question, what was to be done under the Act? Under the 74th section, he found that what he had done before—he supposed illegally—was now legalised, and that the division might be horizontal as well as vertical. Under the same section (74), the buildings might be separated by a “proper party structure,” and, by referring to Section 5, he found that a “proper party structure” was, among other things, one which might separate a building horizontally. But, having separated those two buildings, the first thing everybody wanted to do was to unite them. Then came in his difficulty. Under the 72nd section, he was told what he might do, to a certain extent, and Sub-section 3 of the 77th section said that “An opening shall not be made in any “party wall.” It did not say that an opening might be made in any party wall, of a certain size, and under certain conditions. That one could have understood, but it said :—“An opening shall not be made in any party wall”—excepting under certain conditions. But it did not say anything about an opening in this “party structure” which he was going to create. What he wanted to know was this—when he had divided these two buildings, as he might legally do by a party structure, part vertical and part horizontal, what opening was he entitled to make in that party structure?

Besides that little difficulty, he also wanted to know, if anyone would kindly tell him what was a *proper* party

structure, and what must be its thickness? A party wall was clearly defined, according to certain circumstances; but a party structure, so far as he understood it, was entirely different.

As he interpreted the Act, if he wanted to divide a building (say a large warehouse), he might carry a "party structure" vertically to, say, the second floor, and horizontally to one side wall on the level of that floor; but that was not a party wall, for it was not in conformity with the provisions of the Act, by which it must go through the roof; but it might be a party structure, for, as he read it, a party structure was something separating vertically or horizontally, and he wanted to know of what thickness it might be. Then he should be very much obliged to anybody who would tell him what provisions existed in the Act to prevent his cutting a hole in either the vertical or the horizontal portion of the "party structure" he had suggested. With regard to the uniting of two buildings, the Act said:—"An opening shall not be made in any party wall or in two "external walls;" which, he supposed, meant two walls exactly together, with no space intervening. The point he had mentioned appeared to him to be a serious omission in the Act; he thought, in Section 77 (3), the words "party structure" should have been added after the words "party wall." He should be much obliged if anyone would enlighten him, first, as to the thickness of a *proper* "party structure," and, secondly, as to what in the Act prevented him, after having separated his building in order that it should not exceed the 250,000 cubic feet, from making an opening in that party structure of any size he liked?

Mr. T. BLASHILL (Fellow) said that neither the County Council nor Parliament had any intention an opening should be made in a party-floor. That matter was

discussed in the Committee Room, and again in private between himself and others, with a view of seeing what arrangement could be made, and the point now raised was distinctly in their minds at the time. Whether they had eventually succeeded or not, perhaps their legal friends would some day assist in enlightening Mr. EVE better than he could.

He had been occupied on the matter of this Act for the greater part of two years, and for a good deal of that time he was sitting on committees twice a week, with the able co-operation of professional gentlemen then present. They assisted to make the measure what it now was, but, after getting it through Parliament, he felt no responsibility whatever for it, and could not venture a conjecture as to what the effect of any particular section might be when it was made the subject of litigation.

He did not know what would grow out of the Tribunal of Appeal; but it seemed to him to be rather an important thing that the County Council had permitted to be created, and he might say they partly assisted in creating, a body which would take a good deal of power out of their hands, and, to his mind, it was a matter for congratulation that the Tribunal was constituted as it was. The members comprising it were well known to all present, and, so far as he was concerned, he should have the greatest confidence in them.

He would refer briefly to two or three other things. The question of "Contract" was one of them. It might, perhaps, be useful if he mentioned a rather important fact in regard to the decision which had been referred to. The case was founded on the basis that a contract to erect a specific building had been entered into—not a mere contract to cover ground, but a contract to erect several buildings, one of which was already erected—*i.e.*, the

contract was partly carried out in the case of a specific building, with plans, sections, specifications, and everything ready to go into the hands of a builder. That was the contract which went before the Court.

The County Council were compelled to contest the case, for, the district surveyor having objected, the other party took it into Court, and, in fighting it out, this point came up for decision.

He was not sure whether he liked some parts of the new Act better than the old one. He was afraid more applications would come to the Council, notwithstanding the many things that were provided for, and he must express his opinion that the fewer matters the Council had before them the better; and, as regarded the public—surveyors and their clients—the less they were obliged to have to do with any public body whatever, the better for them, for every application involved some delay. The County Council were not a very expensive tribunal to come before, but delay was always troublesome, as was the uncertainty involved. If everyone could manage so to work under the Act as to settle every point with the district surveyor, he, for one, would be delighted.

Something had been said in the Paper about the Act rendering crescents impossible. He did not know that he quite understood whether the author meant merely a setting back of the houses on one side of a street, with, possibly, a garden in the space so left open, or a separate street going out of the main street and coming back into it. Nothing in the Act prevented the formation of the former kind of crescent, but what was aimed at was the prevention of the practice of running a small street out of a main one, and coming back into it again, without any provision for through ventilation. Take, for example, the case of a main road, adjoining which one man owned one field, and the next,

perhaps, two or three. Each one of those owners, without making, or attempting to make, any arrangement with his neighbour, dealt with his land so as to form what he might call a little hamlet of his own. It was difficult for the police to supervise such a place, and it might ultimately become a slum, objectionable in every way, and of no public advantage.

The owner of such a plot of land, after lying quietly by until it became every year more and more valuable, from whatever cause, without paying a single farthing in respect of public improvements, of new streets, or of anything which constituted a city, might run a few roads over his little field and enter at once into this inheritance which he had got for nothing. He thought that a serious thing.

He went a few months ago, in Berlin, to see some new buildings erected for artisans. After driving a mile or more along streets 150 feet wide he turned into a 60 ft. side street, and from this street he turned into a 60 ft. back street. That was a type of what was being done in regard to streets and buildings in every growing and flourishing city, such as Berlin or Budapest. In Budapest improvements had been going on for the last 25 years, of which a constant record was kept, with an accurate survey shewing every alteration up to date, at an expense for those 25 years of something like £60,000. That shewed what a call there was for the services of the scientific surveyor everywhere but in London. Previous speakers had regarded the matter from two points of view, some from that of the landowners, and some from that of the public. But care must be taken that the speculative builder and the jerry builder, and perhaps even a lower class, were not given too free a hand. The medical officer could, of course, step in if buildings were not better built with a view to health arrangements, and the magistrate would, as

had already been done in the case of certain new buildings, close them. These compensating influences would tend to prevent the recurrence of a worse state of things than now existed. The provision enabling window-frames to be put flush with the outer face of the wall would, he thought, lead to very serious risk from fire.

There was a necessary clause in the Act, similar to one in the Act of 1855, enabling houses for which arrangements had been made during the last year to be carried out under the old Act. First of all, a contract must have been made before the passing of the Act, or, if the work were actually begun before the end of the year it came under the old Act. The intention was, he thought, obvious. The world went on notwithstanding Acts of Parliament. If the owners or builders had got their arrangements so far forward that it would be highly inconvenient for them to be changed, then, if in their judgment they thought it right to go on under the old Act, this Act allowed them to do so. He thought that applied to the County Council as much as to anybody else, with this little difference—that with regard to the dwellings which were alluded to by a speaker at the last meeting, the Council were under statutory obligations, practically, to erect particular dwellings, and they had to do the work to the satisfaction of the HOME SECRETARY, and to house, on each particular site, primarily, the same number of people that were taken off. But the HOME SECRETARY had power to reduce the number to one-half, and had done so, so that no change could be made in those particular cases without a new Act of Parliament, as he understood it, and a delay of a year or two. It might be hoped that a body like the County Council, subject to public criticism, would take care that no real harm should be done, even although they might in particular cases be building under the old Act.

But the speaker to whom he referred had said: "The London County Council had themselves taken five sites in Macklin Street, Drury Lane, for the erection by the Works Committee of artisan dwellings. Before the 31st December (he believed within 14 days), the County Council rapidly placed upon each of those sites a small quantity of brickwork. This fact he knew by personal observation. The small pieces of brickwork were about 8 feet long, and had been covered up with boards to protect them from the frost, He ventured to assert (until contradicted) that the only object of the County Council in putting down these pieces of brickwork on their own sites, to be erected by their own Works Committee for the benefit of the artisan, in whose interest the work was professedly carried out, was to evade the provisions of their own Act." The same gentleman had, he believed, on four recent occasions, made that statement as to this area without giving the slightest hint of what he objected to, or saying what was wrong, merely publishing through this Institution, and through the newspapers, and through the Council itself, a statement meant to be damaging, and which he asserted to be true. No one, so far as he knew, had taken or would take the trouble to contradict a statement made in such a way. It was not his (Mr. BLASHILL's) business, but he did not believe, and he had met with nobody who believed, that there was any foundation for the statements so confidently made.

He had to study this Act in the same way as other surveyors, and he hoped that all parties to it would go to work candidly, frankly, and fairly, and that they would never endeavour to push it too far, but rather to get it into working order with as little friction as possible. He had no doubt there were a good many faults in the Act, but that weakness was common to Acts of Parliament, and

must be dealt with as, from time to time, the defects became apparent.

Mr. C. K. BEDELLS (Fellow) said he was in the same position as others who had had to consider the Act in all its stages: first in the Committee of the Institution, then as it passed from the Commons and came before the Committee of the House of Lords, and, lastly, as an Act in its present form; and, in consequence, he was apt to confuse the one stage with the other, and, for the moment, to overlook the fact that so much had now been added, omitted, or altered. He would, therefore, ask to be excused if, for the sake of accuracy, he made rather more use of his notes than was customary in these discussions. The author, on page 137, referred to "the back walls, retreating floor after floor" [as provided for, or allowed by, Section 41, Sub-section (2)], thus:—"Any domestic building may extend above the diagonal line (of $63\frac{1}{2}^{\circ}$), provided that the Council or Tribunal of Appeal shall be satisfied that an open cubic space of air will be provided at the rear of such building, equivalent to the open cubic space which would have been provided at the rear of such building if such diagonal line had been drawn from the *ground level* in manner provided in Sub-section 1 (iii.) of this section, and if no part of such building (except as permitted under the preceding provisions of this section) had extended above such diagonal line. The applicant, if dissatisfied with the determination of the Council, may appeal to the Tribunal of Appeal." This clause did not, it seemed to him, fully carry out the agreement arrived at between the various parties in the Committee of the House of Lords, where, after it had been pointed out that the long sloping line of roof given by the diagonal line of $63\frac{1}{2}^{\circ}$ would be a very bad protection against fire, and would

give sloping ceilings to many important rooms, a give-and-take line of stepped storeys, leaving an equivalent open cubic space of air, was assented to, even if the storeys did at places extend above the diagonal line of $63\frac{1}{2}^\circ$; but he did not understand that this diagonal line, in the case of buildings on *old sites*, was to start from the *ground line*, but from 16 feet above, or in the words of the Act [Section 41, Sub-section (2)], “at a level of 16 feet “above the level of the adjoining pavement,” &c. If this give-and-take stepped line was to be governed by a diagonal line of $63\frac{1}{2}^\circ$, starting from the *ground* level, a much larger open cubic space for air would be obtained than if it started from the 16 ft. higher level, and this considerably reduced the concession made in favour of buildings erected on streets and sites made before this Act, in the former part of this sub-section.

This was not the only case in which the Act in its completed form was more stringent than it was understood to be when discussed before the Committee of the House of Lords. In the concluding words of Sub-section V., Section 41, the hardly-gained concession of “the return “front of such buildings” (*i.e.*, corner buildings) “being “carried up to the full height of the front elevation for “a distance of 40 feet,” was thus qualified: “or for “such less distance as the requirements for open space at “the rear may demand.” Now if, as was frequently the case, the total depth of a corner site was 40 feet, with this qualification it might be impracticable to take advantage of the intended 40 feet return of full height in the case of such corner sites, unless it could be done under Section 49, which contained no such qualification, and seemed inconsistent with Section 41. This led him to remark that in cases of sites previously built upon in streets made recently, but before the passing of the Act, there would be many

instances of great hardship if, in the rebuilding, the provisions of Section 41 were strictly enforced; and for this reason he should be glad if the first decision of Sir JOHN BRIDGE under the new Act was sustained, and a liberal interpretation given to Section 212, as to a building structure, or work "which has been commenced before, "and is in progress at, the commencement of this Act, or "which is to be carried out under any contract entered into "before the passing of this Act." This word "contract" should not, in his judgment, be confined to a contract with a builder, but should embrace contracts or building agreements with the lessor or freeholder.

He might illustrate his meaning by reference to plots of land belonging to, or which did belong to, the London County Council, and some of which may have been let on building agreements by them; say, for instance, in "Rosebery Avenue." These plots were, in his judgment, from the first, and under the old Acts, far too small in depth; and if so, under this Act, with its provision of 10 feet open space in the rear of each plot, and the diagonal line of $63\frac{1}{2}$ degrees, starting from the rear boundary, would be of much less value either to the London County Council or to their lessees or assigns, and the prospects of recoupment by the sale or letting of these would be materially diminished. There was another respect in which the holders of plots on Rosebery Avenue and similarly widened and improved thoroughfares would be at a disadvantage, and were, in his judgment, entitled to some relief, though he was not clear whether it would come within the powers of the Tribunal of Appeal to afford it to them. Such holders would not be able to take the full benefit intended to be given by Section 43, Sub-sections I., II., III., because, if the holders caused plans to be prepared, to be submitted to the district surveyor for his certificate of the

buildings formerly existing upon these sites, there would be in many cases only quite small, low back buildings to shew, the main front building having, for the most part, stood on the parts of the old sites which were now part and parcel of the widened thoroughfares. The permission in such cases that "such person may then erect the intended domestic building, but so that no more land shall be occupied by the newly-erected building than was occupied by the previously existing building, as so certified," would be of little value to the holder of such plots.

While he deprecated too stringent an application of the new Act to old building sites, and its seriously injurious retrospective effects as regards holders of existing contracts or building agreements, he generally approved of its objects, and of its application to new and vacant building lands. It was also a great boon to get an Act which so largely consolidated numerous previously existing Acts relating to streets and buildings.

He also entirely agreed with the remarks made as to the worthy part which the Institution played in the moulding of this Act into a shape which must be primarily and directly beneficial to the public, and, more indirectly so, to the profession, and he heartily congratulated the three members who formed the Tribunal of Appeal, and hoped they might long be spared to discharge their onerous duties in such a manner as to gain additional honour to themselves and to the Institution.

Mr. H. B. HANS HAMILTON (Associate) said that, when the Bill was first discussed in that room a year ago, it had caused not a little misgiving in the minds of many present. It was now an Act, and he thought the general feeling was one of great confidence that at any rate it would prove to be a practical measure, and that the County Council might be

congratulated on their willingness to hear what the Institution and other bodies had to say on the subject, especially when all suggestions had been made with only the public interest in view.

With reference to one or two matters on which his profession gave him, perhaps, some right to speak, he noticed that some complaint had been made that a definition of a "building" had not been inserted in the Act. He believed that it was with a very wise discretion that Parliament had not had a "building" defined. He saw that in the Bill a definition was proposed, but that eventually it was struck out. When, before the Committee, a definition was tried, one of his learned friends remarked that the definition might be met by three walking sticks stuck in the ground with a hat on the top.

At any rate, although the actual definition of a "building" was not embodied in the Act, every separate sort of building was defined. He found pages of definitions—"new buildings"; "dwelling-houses"; "public buildings," and "buildings of the warehouse class," and many others; and when the point came before the magistrate to decide what a "building" was, if he considered all these other definitions, he might come to a very fair conclusion as to what a "building" was, it being, he thought wisely, left to the magistrate to decide this matter.

One point had been referred to with regard to Section 43, viz. :—

"When any person intends to erect a domestic building (not being a dwelling house to be inhabited or adapted to be inhabited by persons of the working class) abutting upon a street on the site of domestic buildings existing at the commencement of this Act, or on a site vacant at the commencement of this Act, but which has been occupied by a domestic building at any time within seven years

“previous to the commencement of this Act, the following provisions shall have effect :—

“(i.) It shall be lawful for such person, before commencing to erect the intended domestic building, to cause to be prepared plans showing the extent of the previously existing domestic building in its several parts (or in the event of such building having been taken down before the commencement of this Act, or having been accidentally destroyed, the best plans available under all the circumstances of the case), and to cause such plans to be submitted to the district surveyor, who shall (if reasonably satisfied with the evidence of their accuracy) certify the same under his hand, and such certificate shall be taken to be conclusive evidence of the correctness of the plans.”

One could understand, from that, that the County Council were anxious to know the dimensions of the building that was to be removed or had been taken down. The Act in the next part (No. 2) went on to say that, having ascertained this satisfactorily through the district surveyor, “such persons may then erect the intended domestic building, but so that no more land shall be occupied by the newly erected building than was occupied by the previously existing domestic building as so certified.” Now, this was a point upon which disputes would probably arise, as a difference of opinion had arisen on the 212th section before the magistrate. He had little doubt that the magistrate would say, “I must give the ordinary meaning to these ordinary words,” and it did seem to him that a person might erect any building that would occupy no more

land. This might open a large question, and probably the County Council would seek a decision on the point.

There was one other point with regard to the case which came before the magistrate on Monday last. It seemed to him that if the County Council were right in their construction of this Section 212, very serious damage and loss would occur to the owner, because in this very case the parties who entered into the contract in question with the Duke of BEDFORD had the plans and the elevation of those blocks of buildings before them at the time. These were mentioned in the contract, and if the County Council could now step in and say, "You have constructed one block " with which we cannot interfere, but you have three or " four more blocks to erect which we say come under this " section," surely it could not be said that this was a contract which could be dealt with under the Act. On the faith of that contract £2,000 a year had been paid since 1890. That money was calculated on the capacity of the buildings, and if that capacity were curtailed the character of the whole contract, entered into so long ago as five years, was altered. He thought Sir JOHN BRIDGE used a very wise discretion when he said that he had only one point to decide, and that he must give the ordinary construction to ordinary words in the Act, and that, in his opinion, the buildings came under the old Act. In regard to those buildings it must be recollected that nothing could be said against them under the old law, under which the contract was entered into, and the plans and specifications prepared. It involved a somewhat serious question, and he thought the County Council were making a mistake in trying to prevent those buildings being erected under the terms of the old Act.

In almost every section and portion of this Act the words occurred, "the County Council may permit." They might permit almost anything. He thought that was very

wise, for in dealing with the varying conditions existing in London, it would be a very serious thing to draw a hard-and-fast line.

MR. H. T. STEWARD (Fellow) said he had reserved the few words he had to say until the close of the discussion, and that for the reason that he thought some point might have arisen upon which information might be required from some of those who took an active part on behalf of the Institution during the time the Bill was before the Committees of the House of Commons and the House of Lords. He was glad to say, however, that he had not heard any question which seemed to him to require a special statement on his part, and, therefore, he would at once proceed to the consideration of the Paper.

First of all, he desired to join in thanking Mr. BLACKBOURN for having again brought the subject forward. It seemed right that he should do so, for it was only about a year ago that he had read a Paper on the Bill, and, now that what might justly be termed a crude and impracticable Bill had been transformed into a reasonable and workable Act and had become the law of the land, it seemed to be only suitable that Mr. BLACKBOURN should again introduce the matter for discussion by the Institution.

The Act seemed to have been considered by most of the speakers in one of three aspects—either past, present, or future. It did not seem to him very profitable to spend much time in considering the history of the Act, further than to consider history as always repeating itself, and in that way use the history of the past as a guide in forecasting the future. So looked at, the past of this measure tended to shew that that Institution should continue in future to do as it had done in the past, namely, carefully to watch all Bills promoted in Parliament which might in any way affect

those interests of the public with which the Surveyor's profession was concerned. The Members of the Institution must have been very glad to hear so good an authority as Mr. FREEMAN say that the Institution had given useful assistance, and that that assistance had been received with "cordial thankfulness." At the same time, he was a little astonished to hear such an expression from such a source, for his friend Mr. FREEMAN, and his learned colleague, had certainly a somewhat peculiar method of shewing their thankfulness at the time, and they "dissembled their love" with great ability. Upon one occasion they succeeded, upon a purely technical ground, in preventing the Institution, as an Institution, from presenting its view on a certain point before the Committee.

As to the future of the Act, he thought all would admit that Mr. RICKMAN was right in saying that time alone would shew how the Act would work, and that anything which might be said on that point must be purely speculative. He did not intend to pose as a prophet, and it appeared to him that previous speakers had done wisely to confine their remarks, as far as possible, to actual facts and the more salient points of the Act. He had carefully looked through the Act again since the last Meeting, and he had noted several points to which he would have drawn attention but that Mr. STENNING had forestalled him, and he would only mention the regulations as to courts within buildings which, if worked out, would give some startling results; and the clause was not so inequitable as some were disposed to think.

There were, doubtless, many differences of opinion as to the interpretation of different words in the Act, some of which had already been expressed during the discussion, for instance, as to the meaning of "contract" in Section 212. That matter was already, he believed, before the Courts,

and therefore he did not propose to express any opinion upon it, for, although he might be qualified to state what was the intention of the framers of that clause, that gave him no title to settle the question of law or to anticipate the decision of the judges. The Act, as worded, had now gone forth for better or worse, and whatever interpretation the judges put on it would have to be the guiding rule in future.

He had had a great deal to do with the Act during the past two years, and had given a great deal of time to it; and perhaps his opinion of the new Act might be not without value. He thought, however, that, as a whole, the Act might be considered satisfactory, and that it was certainly an improvement on the old Act. He trusted that by careful working, and by the maintenance of a fair and just spirit, much of the trouble now anticipated would be avoided. Before concluding his remarks, he desired to bear hearty testimony to the unwearying courtesy and the great ability, if he might be permitted to say so, displayed by DR. LONGSTAFF in all the negotiations, not only with the Institution and during the numbers of interviews he had with him during the time the Bill was before the Committee of the House, but also in the Committee room in the House of Commons.

MR. E. J. CASTLE, Q.C. (Associate), said he would not have addressed the Meeting but for the fact that he happened to be one of the counsel in opposition to the Bill, and he thought he ought to say how much assistance had been rendered by the representatives of the Institution in carrying it through in its present form. By their aid the details had been so thoroughly thrashed out that it was almost idle, he thought, to come and discuss them now. The thing had been started under the best auspices, and it seemed to him the discussion might have been adjourned for two or three

years until the practical working of the Act could be criticised.

He had also had the honour of acting for the District Surveyors, and remembered that the reason why the regulation of the County Council for preventing district surveyors carrying on private practice was not opposed by them, was because the point was not raised in their petition. Under the circumstances it became necessary to seek the assistance of another friendly petitioner, who raised the point for them, and though they could not get in a clause prohibiting the County Council from imposing this restriction, yet the objectionable powers sought by them were struck out. Thus, district surveyors were left to the old law, and if the interpretation which it was sought to put upon it was the right one, it seemed to him that the County Council very much exceeded their powers in attempting to deprive them of private practice.

He thought the thanks of the whole profession were due to The Surveyors' Institution, which had faced the great expense involved in the amending of the Act; but, apart from professional interests, he thought that the Institution had been actuated, in the course which they had taken, by a sincere desire to see justice done to the public at large.

Mr. BLACKBOURN, in replying, desired first to thank the Members for the vote of thanks that had been accorded to him.

There were several matters of interest upon which he might touch, but the hour was late, and he must only deal with them briefly.

With regard to his contention that in the future houses would cost from 10 per cent. to 15 per cent. more than at present, he would only say that he based it on actual experience. It was not a question of thicker walls only, but

also of higher rooms, and he thought it would be found, on working out, that his estimate was not exaggerated.

He was afraid that he had not made one or two things quite as clear as he could have wished. With regard to the difficulty of forming crescents, his words, as recorded in the "Transactions," were "It has been stated elsewhere" that crescents could not in future be permitted, and he specially put it that it had been so stated. He did not state it as his own opinion, nor did he think the regulation would prevent crescents being formed. Then, again, the matter was further safeguarded by the words "The Council may refuse to permit."

With regard to the return of a corner building overshadowing the adjacent one, that had no reference to the legal right of the adjacent house to light, but to the particular line taken in each case. He thought that was the only case where any such power was ever given to any of the officers of the Council. It was in a different category altogether from the rest. He thought that the regulations should deal more with what he might call brick-and-mortar questions than with abstruse and difficult matters, such as light and air, which often gave rise to so much dissatisfaction.

He was glad to hear from Mr. COLLINS and Mr. FREEMAN that neither counting houses nor offices were to be regarded as habitable rooms. That was quite his own opinion; but still it did occur to him that, inasmuch as a *primâ facie* case, at any rate, could be made out on the other side, the Act was not so clear as might be wished.

One more point before concluding. There were certain cases, as Mr. FREEMAN had reminded him, where the Council might still confiscate the land (for it was confiscation) of individual owners, and not only that, but they might also go further and cause additional expense to the owner for forming and metalling the road. Now, it

seemed to him that, in the first place, it was wrong thus to take land for the public benefit without compensation to the owner, and that to require him to pay the cost of making that road was adding insult to injury. The only mitigating view he could take of the section was that it remained a solitary instance of confiscation to shew from how much owners had been saved.

The Meeting then adjourned.

PAPER ON
LIGHT RAILWAYS.

BY
ARTHUR C. PAIN, M. INST. C.E.

*Read at the Ordinary General Meeting of THE SURVEYORS'
INSTITUTION, Monday, February 18th, 1895.*

DANIEL WATNEY (VICE-PRESIDENT) IN THE CHAIR.

THE subject of Light Railways for country districts has, since the passing of the light railway clauses under the Regulation of Railways Act, 1868, been constantly a matter of consideration ; but comparatively little has been done since that date in the construction of any number, some half-dozen short lines only having been constructed under these light railway clauses.

In view of the recent action of the President of the Board of Trade in convening a conference on the subject, and the evident interest the public are taking in the matter, I have thought that the result of my experience in the construction and working of light railways might be of general interest to the Members of the Institution, mainly in considering what alteration of the law should be made.

The conference was called to consider : 1st. How far the general requirements of the Board of Trade as to the construction and working of new railways may fairly be relaxed, especially in the case of lines built through sparsely populated and agricultural districts. 2nd. Whether ad-

ditional legal facilities for obtaining powers to construct tramroads and light railways are necessary or desirable.

In my opinion, the report of the Committee does not go deeply enough into the matter. If a light railway is to be made, economy must be effected under every head, and to do this properly, the law requires very important alterations. It is proposed that the power to authorise light railways should be transferred from Parliament to the County Councils; but this would be of doubtful advantage, particularly in cases where the line is situated in more than one county.

A modification of the Parliamentary Standing Orders to meet the special requirements would, I believe, be far simpler.

The following are the principal modifications I propose of the Standing Orders of Parliament and the laws affecting the authorisation and construction of light railways:—

1st. One notice only of the intention to introduce a Bill to be required in a paper circulated in the district served by the light railway, one in a London daily paper, and none in the *London Gazette*, which the public never sees or reads.

2nd. The Parliamentary deposit to be at the rate of $2\frac{1}{2}$ per cent. on the cost of the works, instead of 5 per cent., as at present, and the promoters to be at liberty to deposit stock of the trustees' investment class.

3rd. The scale of fees payable during the passing of the Bill through Parliament to be 50 per cent. less than that now in force.

4th. The provisions under the Customs and Inland Revenue Act, 1889 (Mr. GOSCHEN'S), by which 2s. per cent. on the authorised capital has to be paid on the passing of the Act, to be repealed so far as regards light railways.

5th. Power to be given in all Light Railway Acts to authorise the company to issue ordinary shares at a discount

not exceeding 10 per cent., or to pay interest out of capital not exceeding 3 per cent. per annum during the construction of the line.

6th. Power also to be given to issue debentures not exceeding one half the amount of the ordinary share capital.

7th. Power to be given to the company to compel parishes or parts of parishes, to be benefited by the construction of the light railway, to make and levy a rate on all property, such rate to be determined by the valuer appointed by the Board of Trade, and to be equal to one moiety of the improved annual value arising from the opening of the light railway. No such rate to be levied until the light railway is opened for traffic; and as soon as 3 per cent. has been earned on the ordinary stock from the net traffic receipts, and paid for three consecutive years, the power to rate the parish to cease. The maximum amount in the £ of the rate to be levied, to be fixed in the Bill by Parliament after having received a report on the same by the valuer appointed by the Board of Trade.

8th. Acquisition of land. The powers of the Board of Trade under the 85th section of the Lands Clauses Act to appoint a valuer for immediate possession to be extended, so as to constitute such surveyor or valuer the official umpire in all cases of disputed compensation between the company and those beneficially interested in the property to be acquired.

9th. Power to be given to the company, in all cases where the compensation exceeds the sum of £100, to give a rent-charge in place of such money payment of compensation, such rent to be based on the 3 per cent. tables.

10th. Powers of the Board of Trade to be further extended as follows:—After the passing of an Act, but before the commencement of the construction of a light

railway, working plans and sections, with a specification of the works, to be deposited by the company's engineer with the Board of Trade, who shall state, in writing, what relaxation of the usual requirements will be permitted under the particular circumstances of each case, under the following heads:—Description of Permanent Way; Signalling at Junctions and Stations; Length and Height of Passenger Platforms, if any; Accommodation at Stations for Passengers; Gate-keepers' Huts at Level Crossings; Speed of Trains, and Description of Rolling Stock.

11th. Power to be given to the Board of Trade to permit the company to use materials which have been used before, but which are in a thoroughly sound condition, such as rails, sleepers, fastenings, fencing, gates, girders for over and under bridges, station buildings, or other materials which the company's engineer shall declare, in writing, are fit and proper to be used for the purpose.

12th. Light railways not to be subject to the clauses in the Regulation of Railways Act, 1889:—1st. As regards mixed trains; 2nd. As regards continuous brakes, except in cases where the gradients are so long and severe that, in the opinion of the Board of Trade inspector, it would be dangerous to work the trains without them.

13th. No passenger duty to be paid by a light railway company.

It may be asked why these alterations of the law, as it stands at present, should be made in favour of light railways only, and not be made applicable to any railway; but it must not be forgotten that it is in the interest of agriculture that these changes are proposed, and not to benefit, except indirectly, the existing railways.

The alteration of the Standing Orders of Parliament, as suggested under the first three proposals, would be of infinite service in reducing the cost of the early stages of

promoting a private Bill, and a great saving of time and money would be secured if Parliament would refer the consideration of opposed Bills for light railways to a Joint Committee of Lords and Commons; or, at any rate, in cases where the capital to be authorised is under £50,000.

I consider that Parliament should remain, as at present, the authorising body, as there is a tendency on the part of local authorities to impose many petty restrictions which hamper the projectors and materially add to the cost of construction. Greater impartiality is also secured in the conduct of the inquiry by the selection of members entirely unconnected with the district to be served, which can never be the case with county councils.

Proposal No. 4 is to relax a law which was really passed to check the growth of limited companies.

Proposals Nos. 5 and 6 are financial, and would help materially in smoothing away the insurmountable difficulties which sometimes arise in raising the necessary capital. It is my experience that such restrictions cause the very evils they are intended to prevent.

Proposal No. 7 will, perhaps, be considered ill timed in the present depressed state of agriculture, yet few will dispute the advantages gained by levying rates for roads, sewers, waterworks, arterial drainage, &c., &c. A parish or part of a parish is proposed as the unit rather than a union or county, because the rate could be more fairly made on those that would directly reap the benefit. In Ireland, the barony is the unit of rating area, but the circumstances are not quite the same in the two countries.

On the one item of maintenance of roads a very large saving is often made by the construction of a light railway, causing the removal of heavy traffic, such as stone, timber, coal, road metal, and agricultural produce, from the road to the railway. This and many other benefits conferred on a

district by a light railway are capable of estimation by the surveyor.

My contention is, that such benefits should be rated at one half their value, and if no such benefit be derived, that there would be no rate made. From the construction of a railway, some of the parishes would derive no benefit, because they are at present well served by existing railways, and it would, therefore, be unreasonable to rate them, as would be the case if a larger unit of rating area were adopted—say the poor law union or county.

It must not be forgotten, while on the subject of a rate in aid of a light railway, that it does not follow that the total amount of such rate shall be equal to a high fixed rate of interest on the total capital to be expended in the construction. Large sums of money are now lying idle, or nearly so, in this country, the owners of which would gladly take advantage of a safe investment if the *bona fide* nature of the project were shewn by the parishes to be developed guaranteeing to pay such a sum out of the rates as would secure a certain minimum interest, say $2\frac{1}{2}$ per cent., with the prospect of an increase as the traffic of the line developed.

At times, light railway projects are not supported as they should be, because it is hoped that a through or trunk line of the ordinary type will be made. I could give a number of cases where extensive districts have remained undeveloped for this reason only.

It is most important to remember that if there are any resources in the district, a light railway will develop them, and, if of importance, and if the traffic justifies it, the railway can be improved up to the main line standard.

A properly laid out light railway will develop an ordinary agricultural district better than a heavy main line, because the works being light and the line following

to a greater extent the contour of the country, inexpensive sidings can be put in at farms and hamlets which would greatly improve their value as properties.

Proposal 8 deals with the difficult land question. In by far the larger number of cases, the land is held by numerous owners. In my experience it has averaged three per mile with the usual subdivisions, the ownerships being of the most varied kind, such as Glebe, Copyhold, Lammas, Crown, War Department, Woods and Forests, Colleges, Corporations and Trustees of the Poor, Commissioners of Commons, and Charities—the last-named being the most difficult of all to deal with. To the above must be added sporting rights, easements for water, mining royalties, mineral rights of the lord of the manor, ferries, and many others. The interests of public and private bodies are also affected, such as Drainage and Harbour Commissioners, County Councils, and Rural and Urban District Councils, all requiring compensation in money or accommodation works, and often both.

Private ownership, more often than not, includes marriage settlements, mortgages, rent charges, leases, and agreements. The skill and ingenuity displayed in making and supporting real and (may it be said ?) often imaginary claims, for some of the multiplicity of interests disturbed in the requisition of the land for a light railway, has, in my experience, wrecked the most desirable projects. How can this costly complication be best and most easily dealt with? My view is in favour of the enlargement of the powers given to the Board of Trade under the 85th section of the Lands Clauses Act, and section 36 of 30 and 31 Victoria, cap. 127.

The weight and authority given by the appointment of an arbitrator by the Board of Trade to settle all cases of dispute between the company and those beneficially interested in the property to be taken throughout the line, as

well as the works of accommodation to be constructed, would, I think, tend to prevent costly litigation arising from inflated claims for compensation.

It may be urged that, in considering the question of general injury done to a property, the benefit to the remaining portion should be treated as a set off. I would not advise this alteration of the law, as it is clear that an adjoining landowner, whose lands were not taken, would derive equal benefit, without any disadvantages by severance or otherwise. Again, if a rate were made on the property in the parish, all owners and occupiers would pay their proportion of such improved value.

As an instance that the Government themselves have found the purchase under the Lands Clauses Act most onerous, it may be mentioned that in the Aldershot Roads Act, 1890, all claims for compensation are referred to an arbitrator, to be appointed by the Chairman of the County Council for Surrey and the Secretary of State, whose decision in all things shall be final and conclusive.

It is hopeless to expect that light railways can be made without compulsory powers for the purchase of land.

The settlement of all disputed claims by an official arbitrator would, no doubt, tend to put a stop to inflated claims, and reduce the present costly proceedings; but, on the other hand, the volume of new work created will more than compensate the professions affected.

It is possible that a more simple form of legal conveyance of land might be adopted than the present system, with its lengthy contracts to sell, abstracts of title, requisitions, declarations, parchment title deeds, and heavy bills of costs.

A printed form of contract to sell, with an accurate plan, and an undertaking to convey if called upon, would, in the majority of cases, be all that is required.

If the 9th proposal were adopted, a great deal of expenditure in reinvesting might be avoided, as a rent-charge secured on the gross earnings of the line ought to be a most excellent security for trustees or limited owners to accept.

Rent-charges are frequently accepted in lieu of cash payment; but, at present, such acceptance is optional. It should be made compulsory. The financial relief to the company would be considerable, and, with $2\frac{3}{4}$ per cent. consols at 104, rent-charges at £3 per cent. ought to be a valuable security in exchange for the land.

Proposal 10, if carried out, would be the means of avoiding many disappointments to engineers and their boards of directors. No engineer knows what view the Board of Trade inspectors will take on certain points until the inspection takes place; but if plans and specifications were deposited first in detail, as is done on the Continent, much loss of time, trouble, and money would be avoided.

If money is no object, it is easy enough to provide for any contingency, but, when every pound is of importance, certainties are preferable to contingencies.

I would strongly urge that the Board of Trade inspectors should have far more discretionary power given them than they possess at present, and not only this, but power to reinspect, and if the traffic had so increased as to justify more signals, station accommodation, or protection to public road crossings than was at first thought necessary, they should have power to require it to be done.

Proposal No. 11. It is not generally known, or possibly it is lost sight of, that all well regulated railway companies remove their permanent way, bridge girders, &c., from the main lines as soon as signs of wear shew themselves, and these materials are relaid or refixed on branches and sidings where there is smaller traffic. Notwithstanding this, a great

deal of material that is still serviceable is rendered useless for want of a suitable place to put it. No material which has been used before is allowed to be used in the construction of a new railway which is to carry passengers. Here, again, some concessions might be made if the weight of the engines and the speed of the trains is limited, as it is under the light railway clauses.

An important saving in first cost can be made, and there are many cases in which the main line company would give help in the supply of such materials at very reasonable rates and on easy terms of payment.

Proposal No 12 would relax, in favour of light railways, a law, the compliance with which involves increased capital expenditure and extra cost of working the traffic. A prohibition to run goods with passengers by all trains and to require trains whose speed is limited to 15 miles per hour to be fitted with continuous brakes is absurd and unnecessary, and it is to be hoped that the law will shortly be amended.

I have not touched on the question of gauge or description of permanent way. In each case the local circumstances must guide the engineer, and the same causes will affect the cost of the work. I am convinced that there are many thousands of miles of light railways or tramroads to be made in this country, which would be of the greatest advantage to all concerned, and would bring prosperity where it does not now exist; but the public must not expect to have the same degree of comfort, speed, and economy as on the ordinary standard lines.

If the persons projecting light railways can by any means persuade the main line companies to work the lines on anything like reasonable terms, it should be done. Experience has shewn that in most cases their requirements are more onerous and costly to comply with than those of

the Board of Trade. The companies' standard is too high, but co-operation has done wonders, and if, as I hope, a large increase in the construction of light railways and tramroads takes place, an association of those interested in such projects for the purpose of working them when made will, I believe, be the most satisfactory solution of the question how to work them at a reasonable profit to the shareholders and for the benefit of the district served.

In conclusion, I must apologise for the shortness of my Paper; but I have been chiefly anxious to elicit the opinions of some of the Members of The Surveyors' Institution, as representing the sister profession to that of the Civil Engineers. It is a large subject, and I hope that in treating it I have in no way wounded anyone's susceptibilities. If I have, I am sincerely sorry, for my only desire has been to get to the bottom of this question, which it was impossible to do, unless the matter was dealt with fairly, earnestly, and openly. The discussion of such a subject before the Institution should throw a most important light on its various aspects, and more especially with regard to the rating of property, for this body comprises the representatives of all the principal landowners of the country, whose views must necessarily be valuable. The conference which I attended at the Board of Trade struck the key-note, by saying that it was of no use to look to the Government for aid, and all the representatives of the rating authorities were unanimous in declaring that no aid could be expected from them, but unless some scheme can be devised for rating those who would benefit by these light railways, very few will, I feel sure, be made.

Mr. HOWARD MARTIN (Fellow) wished to move a very cordial vote of thanks to Mr. PAIN for his Paper, which was particularly valuable because it was a practical Paper, giving

the practical suggestions of a practical man on a subject in which he had had considerable experience. He thought the Paper deserved a special welcome from them, because it was presented to them, not by one of their own members, but by a member of another profession which was closely allied with their own, and frequently co-operating with it in many ways. He knew that on a subject of such importance as this (and anything must be of great importance which was in any way likely to aid in restoring, he would not say the prosperity, but the solvency of agriculture) Mr. PAIN was not at all the sort of man to expect those who felt a debt of gratitude to him for his Paper, to abstain from expressing their opinions because they differed from his own, and it seemed to him (Mr. MARTIN) that one of the most doubtful suggestions Mr. PAIN had made was that the construction of light railways should be assisted by money to be raised by rates levied in the parishes which were to be benefited by them. There had been a time when it was possible for light railways to be made by landowners themselves, at their own expense, as, for instance, one from Quainton Road to Wootton, which was made by the Duke of BUCKINGHAM, the effect of which, he believed, on the property of the district through which it passed was a valuable piece of evidence in favour of the multiplication of light railways; but he was afraid that the time when landowners could do that kind of thing out of their own purses had passed away, probably never to return. Nevertheless, he was very doubtful whether the construction of light railways could ever be materially assisted by contributions from the rates of parishes affected. If public money was to be used at all in the construction of light railways, surely it should be the money of the nation, not of the parish. That light railways would help to restore the prosperity of agriculture was the only justification for spending public money on them at all, and the

prosperity of agriculture was a national affair, not a parochial one. There was no class, nor trade, nor profession, which would not reap benefit from the return of prosperity to agriculture, and if the parishes which were to be benefited by light railways (and that necessarily meant the parishes which at present are suffering most from agricultural adversity) were to be made to put their hands in their pockets and subsidise light railways, the burden would be laid on those who were the least able to bear it. And not only would it fall on the districts least able to bear it, but on the ratepayers in those districts who were the least able to do so, because farmers, being assessed on the rental of their farms (perhaps £500 or £600 a year) usually pay the larger share of the rates in rural parishes, and are not, probably, making so much profit as the village timber merchant or shopkeeper, who, perhaps, pays rates on an assessment of £40 or £50 a year; while the latter would actually reap more benefit than the farmers from a light railway.

If, therefore, the burden of providing public money to assist in the construction of light railways were to fall on the rates of the parishes that would be most benefited by them, it would be adding to the burdens of the very people who wanted aid, and, instead of giving them a helping hand, it would push them deeper down in the mire; for he was sure all present would agree with him that any further addition to the rates of rural parishes would be impossible to be borne.

Moreover, Mr. PAIN's suggestion that the rating of parishes for this purpose should be on an assessment of the betterment caused by the light railway, seemed to him (Mr. MARTIN) impracticable. It was, probably, impossible for anyone to assess, with certainty, the prospective value to be given to any property by the making of a light railway,

or public parks, or any other public improvements; or, at any rate, for such an assessment to secure any tolerable measure of public acquiescence.

He did not think Mr. PAIN's comparison of sewerage works and waterworks with light railways was altogether a fair one. Such works, when paid for by the public, were public property. Light railways, according to Mr. PAIN's proposal, would be the property of the promoters, but were to be subsidised by money raised by the rates to provide the promoters with dividends until they were earned by the railway itself. He doubted whether the economy or efficiency of making or working light railways would be really secured by providing the promoters with dividends (however low) out of the rates, and thus depriving the management of the wholesome stimulus of having to depend for success on its own merits.

As regards the substitution of an umpire, to be appointed by the Board of Trade, for the present tribunals constituted by the Lands Clauses Consolidation Acts, he doubted very much whether a great saving would be effected by the alteration. The expenses of arbitration and jury cases were more in the province of lawyers than of surveyors; but it seemed to him that those expenses were really caused by the determination of both vendors and promoters to have their cases put in the best possible manner; and unless there was some law passed to compel both parties to employ not more than one surveyor or expert witness, and limit the costs in other ways, he did not see how Mr. PAIN's suggestion would improve matters. But if it were thought desirable that claimants should be deprived of the option of going to a jury, would it not be better that they should be allowed an opportunity of choosing an umpire for themselves and that the Board of Trade should only appoint if they could not agree? Promoters and claimants would

alike be disappointed if they had not at any rate an opportunity of choosing somebody as umpire in whom the promoters and vendors would have special confidence.

The last point upon which he wished to make a remark was as to the proposed commutation, so to speak, of the purchase-money of land acquired for light railways, by giving the landowner a rent-charge on the gross earnings of the light railway at the rate of 3 per cent. on the purchase-money of his land, instead of cash. If a light railway was going to pay, the landowner, probably, would be content to have the rent-charge. But suppose it did not pay. In that case the rent-charge would be valueless, and the landowner would lose his money. Moreover, it might be taken, he thought, for granted that the persons who had such commutations forced on them would often be the owners who would be little, if at all, benefited by the light railway, for they would, naturally, be those who got the highest compensations, viz., those whose land lay near the terminus of the light railway, at its junction with an existing railway, and was therefore most valuable. In such cases the landowners who were compelled to accept a valueless rent-charge for valuable land, would be forced to contribute heavily out of their own pockets towards the cost of works for the benefit of others, without any return for their contribution; and it seemed unjust that anyone should be exposed to such a risk merely because he happened to have invested in land instead of personal property. He thought it was a matter for serious consideration whether it was worth while, even for so good an object, to add to the growing liabilities and risks of landowners, which made it less and less desirable to own land in any form, and very much tended to discourage that increase in the number of owners of land which was said to be the best mode of making good citizens and patriots.

Mr. E. P. SQUAREY (Past President) said he had very great pleasure in seconding the vote of thanks to Mr. PAIN for his very suggestive and valuable Paper, which not only exhibited great breadth of view, but argued a singularly wide experience. The various suggestions for overcoming the probable difficulties, and for the practical construction and, possibly, profitable working of tramways, or light railways, were most admirable.

It had been remarked by Mr. HOWARD MARTIN that many hidden difficulties lay across the path of the promoters of such undertakings, and the application of the principle of contribution. Of the presence of these obstacles he was fully aware. These it was necessary to overcome in order to secure that economy in the construction of light railways which was an important condition of, if not, indeed, absolutely necessary to, their existence.

He agreed with Mr. PAIN entirely as to the importance of asking for and getting a distinct definition of what relaxations, local, technical, and otherwise, should be made by the Board of Trade before the inauguration of a light railway or tramway; but at the outset he might express his own opinion that each district must practically stand on its own bottom. As he spoke he had in his mind districts with which he was more or less connected, in some of which the requirements would be far better met by road tramways, worked by means of horses or light engines, and in other instances he could see the necessity for suggesting light railways, which he was sanguine enough to think would very quickly and certainly develop into permanent and profitable feeders of a present main line of railway.

Now, the question was, who was to be the arbiter to settle which course was to be taken? He confessed that he rather dissented from the idea of placing the power in the hands of

County Councils, and agreed with Mr. PAIN that they would not be the best arbiters to decide whether a railway or tramway should, or should not, be made, and its direction and length. He thought the initiative must arise from the district itself. The members of the County Council representing that district would, no doubt, have great weight, and could certainly express a valuable opinion as to whether the thing should be proceeded with, or how it should be proceeded with; but he did not think that the County Councils—representative bodies as they were—were really and truly quite the right authority to determine whether a light railway should be made, and in what direction. He would much rather, he confessed, refer the whole matter to an authority to be appointed by the Board of Trade. He had great faith in the Board of Trade, and, if the public would only back them up, that authority was quite able and willing and well-disposed enough to relax the bonds by which their action was more or less fettered at the present time. He was quite satisfied that it was possible for the Board of Trade to select a man who would report, in the first instance, on requisition, and on a certain guarantee being lodged to cover the preliminary expenses; and that, at the same time, it would be well that such a man should ascertain and report on the feeling of the people towards the construction of the proposed railway, and should check, at least roughly, the estimates of cost which the engineer had prepared for the line and the general arrangement of the works to be constructed. That seemed to him to be a reasonable preliminary to be taken to secure light railways or tramways.

He did not for a moment suppose that anyone present could object to the construction of tramways or light railways for the benefit of isolated districts of the country, for it was certain that traffic would spring up the moment there was an opportunity of conveying produce to market.

The traffic might be small in detail, but the small beginnings would, probably, represent the upspringing of interests in the district served by the line.

He remembered giving evidence, some forty years ago, in the case of the Salisbury and Yeovil Railway before the Parliamentary Committee. There was much cudgelling of brains to find out what case could be made out for the traffic that was likely to arise on that railway. It ran through a most fertile district—a dairy-producing country—and every likely source of traffic was suggested, from veal and cheese to fat pigs. The then existing traffic was represented by three road wagons which periodically came from Exeter, gathering their loads as they came, and passed on to London. A great case could not be made out, and the promoters went really *ad misericordiam* to the Committees of the House of Lords and House of Commons. They got their Bill, however, and now from the central station of Semley on that line the traffic in milk alone amounted to almost as much as they expected to get from the whole district.

In the beautiful streams that flowed down and made verdant the valleys of the same district, was grown water-cress, which was little thought of formerly, but now was placed upon the South Western line, from South Wilts, by tons and tons, consigned to Manchester, Leeds, and other manufacturing districts. Such facts as these led him to hold a firm opinion that, if light railways and tramways could be made to permeate the districts which were now without convenient transit, opportunities would be afforded for the development of new industries, and for the increased prosperity of those already existing.

Dr. DU RICHE PRELLER (Visitor) said he had listened very attentively to his friend Mr. PAIN's practical and interesting Paper, but it seemed to him that the difficulties

to be overcome were formidable, and that the relaxations proposed would have to be still further relaxed before any definite practical result could be arrived at. In his opinion it would be much better to take an entirely new departure rather than attempt to modify the existing regulations of the Board of Trade. In other words, he thought that, instead of trying to make light railways across country, it would be better to make road railways or so-called tramroads, thus utilising as much as possible, and where necessary simply widening and improving, existing roads at moderate expense. He had a very wide experience of light railways and tramroads, and might say, without boasting, that there was hardly any line of that description in Europe with which he was not acquainted. Being, moreover, himself concerned, as electrical engineer, in several such lines in Switzerland, he had arrived at some very definite conclusions on the subject.

The great majority of light railways and road railways on the continent of Europe were worked by ordinary small locomotives, some few by steam cars, and some by compressed air. But on such lines, too, the superior advantages of electrical traction were rapidly coming to be recognised, for many of them were being converted to electrical traction, and he knew several road railways in Switzerland which were situated in purely agricultural districts and were worked very economically and efficiently by electricity. By making such lines in this country, two important items of economy would, therefore, be ensured. In the first place, nearly all the difficulties and expenditure incidental to the acquisition of land would be obviated by using the ordinary roads, and, in the second place, electrical traction would ensure considerable economy as compared with steam.

As regards the superior advantages of such lines, the ideas of the public were, as yet, a little hazy. Suppose a

line of 10 miles in length acting as feeder to a main line. A train service of, say, five trains each way would require (irrespective of reserve) one engine of, say, 15 tons, developing 2·5 tons of tractive force, or about 100 h.p., and running about 100 train miles, at a consumption of fuel of about one ton per day. Now, he contended that, by working such a line with electricity from a central station, the same ton of fuel would be utilised much more economically, and would suffice for double the number of short and light trains, thus giving the district, at the same expenditure of fuel and labour, double the facilities of communication as compared with steam traction.

As an excellent example of such a line he might quote the electrical road railway from the Lake of Lucerne to the village of Stans. It was only about 4 miles in length, with easy gradients, and the cost of the whole line, inclusive of electrical equipment, was £4,500 per mile. The resident population was only 3,000 inhabitants, which used the line at the high rate of 24 passengers per head of population per annum. In all cases where electrical traction had been introduced, the traffic increased much more rapidly than on steam-worked lines, while the saving in traction and power expenses was nearly in all cases 50 per cent. as compared with steam.

Mr. JAMES S. BEALE (Associate) said he had listened to the Paper very carefully, for he thought it would be difficult, at present, to find a subject more interesting to a wider section of the public than that of light railways.

Everyone of necessity viewed it from a different standpoint, and he could not help approaching it, to a great extent, from the point of view of the existing railways. If the contemplated light railways were to be promoted as

a speculation, to compete with existing railways, he could not see any reason for giving them greater facilities than the lines with which they were to compete.

But he would put that on one side, for he did not himself believe that the light railways of the future, whatever their gauge or motive power, could really compete with the existing lines. He could foresee a very great advantage, both to the districts which were not now served, and he believed, also to the present railway shareholders, for whom he had great regard, in the construction of light railways as feeders to the existing systems. If light railways were to be regarded as feeders mainly, they could scarcely be expected to pay a reasonable return on capital, unless they were helped, in every way, by every section of the public that benefited by them. First the State ought to help them. As Mr. PAIN had pointed out, the State now took toll in the shape of fees to be paid to the officials of Parliament as the condition of carrying through unopposed Bills, and then, when the capital was raised, a stamp duty or tax of £1 per £1,000 was levied upon it, and for every piece of land acquired another stamp duty must be paid. If all parties were to join in facilitating light railways, surely the State should be called on to give facilities and to save all that expenditure.

It was suggested by Mr. PAIN that one half of the Parliamentary fees on the passing of Bills should be remitted. He (Mr. BEALE) contended that a reduction of 100 per cent. would better meet the case.

He was glad to find that Mr. PAIN—who, he thought, was supported by Mr. SQUAREY—did not agree with compulsory powers for light railways being given, as the Committee had suggested, to the County Councils. He thought there would be considerable danger in giving that power

to County Councils, for the right to take a man's land from him, and to use it, though no doubt for good purposes, was a compulsory power, and if there were objections, those objections ought to be heard by the old tribunal, namely, a Committee of Parliament—one Committee instead of two, by all means—but compulsory powers to take land should scarcely be given to County Councils.

Then, assuming that the most economical form of procedure were established, there came the question of estimating the cost of the land to be taken. All knew how land was always treated in the engineering estimates on the deposit of a Bill. After the railway was constructed, the directors wondered how it was that the quantity of land estimated as being required for stations, &c., was so very largely exceeded in the actual working. Those were items on which there invariably was, and probably always would be, an excess. There were always large expenses on the taking of land for railway purposes, and he estimated that a double line of railway to satisfy modern requirements for sidings, and signals, and stations, would cost, in an ordinary agricultural country—not a wild heath—nearer £5,000 than £4,000 a mile. The high cost was mainly due to the very large amount of these incidental expenses which accompanied the taking of land under the Lands Clauses Act. There were surveyors' fees, and also arbitrators' charges, as well as jury fees. He did not blame professional men for being zealous—far from it—it was one of their very best points; but when it came to breaking the back of a new undertaking by saddling it with enormous charges, it was time that some new outlet were found for professional zeal if such schemes as cheap light railways were to be rendered possible.

He was once concerned in a case—he would not mention

names, although all the parties were dead now—in which, when the case was settled, and the costs were taxed, it took the whole amount of the award, four years' interest, and £150 out of the client's pocket, to pay the extra cost of the inquiry, besides what the railway paid. Seriously, he contended that strict economy of costs must be observed if light railways were to be constructed at a moderate price.

Then, to Mr. PAIN's suggestion of a Board of Trade valuer, he bowed respectfully, for he had a great deal of regard for the individual gentlemen who controlled the Board of Trade. He believed they did know almost everything, and could even value land taken for a railway, but as they could not undertake the work themselves, they must appoint someone else to do it. They had no means of knowing whom to appoint. They might be the right body to entrust with authority; but he did not think they had any opportunity of making the best selection for such an appointment. He had a case, some time ago, where a valuer appointed by the Board of Trade, under the 85th section of the Act, required the Company to pay into Court security to between five and six times the amount which the jury eventually awarded. That was a case in which the Board of Trade had made a perfectly *bonâ fide* selection, but, unfortunately, without the full knowledge of the most capable man to select for that post. Did any practical man suppose that, given a light railway of 10 miles through an agricultural district—whether it went north, east, south, or west—the Council of this Institution could not indicate exactly the person who could do justice throughout the district? His suggestion would be, that the Board of Trade should take counsel with The Surveyors' Institution, and thus give all parties a guarantee of the selection of a man honoured and trusted in his own profession. If that were done, he did

not believe there would be, in most cases, any difficulty found in the acceptance of his award. But it was questionable whether, even then, there should not be a right of appeal from a decision which involved the taking of buildings or building land, or caused residential injury.

Why, again, should there be all the paraphernalia of legal conveyancing following inquiry into claims? The payment of the purchase-money, with a receipt for it, might well be taken as transferring the title to the railway company, and the expense of conveyance be thus done away with. That was frequently done when a little piece of land, say, a few perches, not worth the cost of a conveyance, was acquired by a railway company.

But what, after all, was the real difficulty in the way of light railways? The main question in making any railway was the financial one. If a railway—he did not say a light one—were likely to pay, there were plenty of people to promote it. But the difficulty now was that these light railways, if they paid at all, could only yield the very smallest margin of profit.

He was an advocate of narrow-gauge railways, which he knew was rather a heretical opinion; but a railway of 2 ft. gauge would certainly serve many limited agricultural districts where a wide line would be costly and unremunerative. The narrow-gauge line might pay, with extreme economy, a fair return; but it was impossible to get anybody to finance it unless with some greater security than the traffic on the line. No one liked to pay additional taxation; but either the local authority, or the State, or somebody, must guarantee such a railway, or the railway would remain unconstructed.

He thought he might take it that, assuming the guarantee either of the local authority, the County Council,

or the State, it must be a very poor agricultural district which, worked with strict economy, would not yield three per cent.—if not at first, at any rate within the first few years of the existence of the line.

The statistics of the poorer class of railways were very interesting in that respect. He had been searching the returns for those railways in England and Wales which carried all classes of traffic, and which worked under disadvantageous circumstances, and had found that the gross receipts varied from so low as two guineas a week, per mile, up to £7, £8, and £10. Above £10 a mile, per week, a line was in a comparatively flourishing condition. He did not know what might be taken as the absolute minimum cost of working, but, supposing a case of a railway made as cheaply as possible, and worked as cheaply as possible, he took it at £4 per mile, a week, or very little under. But, with Board of Trade relaxations, by practising every economy in the use of roads, and by the use of the most economical motive power, it ought to be possible to earn (gross) from £5 to £6 or £7 per mile, a week. If the working expenses were, say, £3 10s. or £4, it should be possible to pay 3 per cent. on any moderate cost of a light railway.

Four thousand pounds per mile was, according to the best opinions, within the bounds of fair probability. To pay 3 per cent. on £4,000 would require £2 7s. a mile profit, per week, beyond working expenses. According to English experience, this did not seem to be beyond the bounds of possibility, if the line were economically managed, but such a return would be impossible if any of the outlay were wasted.

MR. R. PRICE-WILLIAMS (Visitor) said that his friend MR. BEALE's remarks had to a great extent anticipated the few observations which it was in his own mind to make.

After all, as Mr. BEALE had said, the question resolved itself into one of cost. Local circumstances must, to some extent, determine the question of cost; but the precise figures should be easily arrived at in the case of any particular line. He agreed with Mr. BEALE that, if light railways were destined, as he believed they were, to fulfil an important function in supplementing the existing railway systems, it would only be by the strictest economy of working, and by ensuring the smallest possible initial cost. He had occasion within the last two or three years to go somewhat minutely into this question, not merely in this country, but in the Australian Colonies, and he was persuaded that light railways could be made with advantage to the district served, and with profit to the promoters. He, however, was unable to agree with Mr. BEALE with regard to the question of gauge, especially in the case of a line destined principally for the transport of farm produce and other comparatively light commodities, as it was of the utmost importance to save the expense of any break of bulk in transporting produce to the great towns.

The result of his inquiry into the subject had satisfied him that the cost of a light line (apart from the land), with 60-pound rails, which would carry the main line vehicles (but not the heavy engines), would not be more than £2,600 to £2,700 a mile, at the outside. He felt certain that if the Board of Trade could be induced to amend their restrictions he could see his way to such a line earning at least £4 a mile per week, which represented about the gross earnings of eleven light railways constructed in Ireland. They had, however, cost, on an average, from about £4,000 to £4,500 a mile, which was much in excess of what ought to have been spent upon them.

It would, he thought, be fatal to any scheme of light

railways if they could not be constructed under less stringent rules than those now insisted upon by the Board of Trade. He was not so sanguine as Mr. BEALE in expecting aid from the State, but he honestly believed that, if a scheme were properly devised and the venture properly financed, neither State aid nor local aid would be necessary. The amount of traffic in most rural districts could hardly be expected to exceed £5 per week; but even with that, he held that there was every reasonable prospect of fair interest upon the capital expended, if the working expenses were, as they ought to be, not more than 1s. 6d. a train mile. A previous speaker had suggested five trains a day; but such a number of trains running over a line of, say, ten miles in length, could not be expected to pay. A remunerative agricultural line would be one running only a very few trains, all well filled, at the lowest possible cost for fuel, labour, maintenance, and repairs, and for which the land had been acquired at a moderate price. He was certain that such a line ought to be constructed at about an average cost of £2,600 a mile; but if the cost were to be, as had been suggested, anything like £5,000 a mile, he thought that the agricultural districts would look in vain for anything in the way of a remunerative line.

He had prepared a detailed estimate for a light standard gauge surface railway, which would be suitable for many agricultural districts in this country, where by "contouring," and following as far as possible the natural surface of the land, and adopting gradients not more than from 1 in 30 to 1 in 50, a good "formation" would, as a rule, be obtained without requiring any large amount of excavation and filling. This estimate he had much pleasure in placing at the service of the Institution.

*Estimate of Cost per Mile of a light surface Line of Railway,
with 60-lb. Steel Rails.*

PERMANENT WAY.				Price.	Cost.		
					£	s.	d.
95	Tons Steel Rails, 60 lbs. per yard	..	..	at £5	475	0	0
3.22	„ Fish Plates	..	..	at £8 16s.	28	6	9
0.65	„ Bolts (No. 1408)	..	..	at £16 6s. 6d.	10	12	3
2.80	„ Spikes (No. 7744)	..	..	at £13 8s.	37	10	3
1936	Sleepers, 2' 10" centres, 8.0 x 9 x 4½,	..	..	at 2s. 6d. each	242	0	0
1760	Cubic Yds., Laying Road	..	..	at 1s. 8d.	146	13	4
1200	„ Ballast, 6 in. deep, under						
	Sleepers ..	..	..	at 5s.	300	0	0
					£1240	2	7
2200	Cubic Yds. Earthwork (forming)	..	..	at 1s. 6d.	165	0	0
	Sidings Switches, Crossings, &c.,	£1,240	10	..	124	0	0
	Culverts, Waterways, Side Drains, &c.	..	..	..	300	0	0
	Station Platforms, &c.	..	..	..	50	0	0
	Land, 3 Acres per Mile	..	..	at £50	150	0	0
3600	Lineal Yds. Fencing and Gates	..	..	..	360	0	0
					£2,389	2	7
	Locomotives,	£2,000	10	..	200	0	0
					£2,589	2	7
	Contingencies, 5 per Cent., say	..	..	..	111	0	0
	Total Cost per Mile	..	..	..	£2,700	0	0

Mr. W. M. ACWORTH (Visitor) said that his friend Mr. PRICE-WILLIAMS had made it a reproach to him to have estimated the cost of English light railways as high as £5,000 a mile, and had described £2,500 per mile as reasonably to be expected; but he (the speaker) would quote actual figures as to the cost of such railways in Ireland. The Clogher Valley Railway ran for 40 miles through purely agricultural districts, and in the only place where it went through a town it paid nothing for the use of the main street in which it was laid. It was built under the superintendence of a very hard-headed set

of business men, and cost £3,600 a mile, and he knew of no instance of a fairly-equipped line which, under similar circumstances, had cost less. It seemed to him in a case of this kind to be better to over-estimate than to under-estimate the cost. Everyone with experience of such matters could call to mind cases in which the estimate had been for, say, £80,000, but where it was afterwards found that £100,000 was wanted, but where the extra £20,000 was hard to get, and means had to be resorted to which practically crippled the undertaking.

In the matter of competition he thought there was practically no danger from that source. These small lines, if they were to live at all, must, undoubtedly, charge higher rates than existing railways, and he should be slow to base his estimate of prosperity on the hope of finding farmers who would send their goods at 2*d.* on a new line while they could send them for 1½*d.* on the old line. It would be remembered that in France, under more favourable conditions than could exist in this country, the attempt which had been made to join up a set of small light railways into new systems, competing with the great existing companies, had hopelessly failed, with the result that the promoters were glad to have their ventures taken over or subsidised, or dry-nursed in any way, by the great railway companies in their neighbourhood.

On the question of guarantee he had had the advantage of taking part in the discussions of the Board of Trade Committee on the subject. He believed that as soon as the Light Railways Bill was introduced, the Report of the evidence taken before the Committee would be published, and he did not think he should be betraying any confidence in saying that he thought anybody who read that Report would have very little doubt that, whatever might be theoretically desirable in the way of guarantees, little help could at the

present moment be expected either from the State or from the local authorities. If any help were possible, he thought it might be in the direction of the local authority having conferred upon them a distinct statutory power to do what, he believed, they did now without statutory power (in the case of dissenting chapels, for instance, and property of that kind), to avoid rating the light railways, on the ground that they were a benefit to the locality. They need not be bound to enter such railways on the rate book at all; or, if they did, they might only assess them at the agricultural value of the land taken. He must say that he fully believed that at the present moment a direct subsidy was not to be got.

He agreed with Mr. BEALE that the cost of working could only be determined by experience, but on the Continent the expenses were sometimes, by strict economy, reduced to a figure which it would be hopeless to expect in England. He found an instance in the *Landes* district, in the south-west of France, where a light railway of some 100 miles in length was worked all over at 43s. per mile, per week, running over the whole system two trains each way for the seven days of the week, and on most of the branches a third train on market day, once a week. On one branch they ran three trains every day of the week regularly. He thought this came to something like 1s. 4d. per train mile, but, no doubt, it represented a measure of economy which was unattainable in England, where wages were so much higher. It was of little use to speculate as to what could be done in the way of economy, until the idea was abandoned that the standard of, say, the London and North Western main line was to be worked up to. That, it seemed to him, was the gist of the whole question.

Both Mr. PAIN and Mr. BEALE had spoken of the Parliamentary scale of fees. It was worth while noticing that

if the promoters of such a scheme applied for a Provisional Order instead of introducing a private Bill they would save the cost of Parliamentary fees. It would only be necessary to alter the procedure a little, and to push the Provisional Order system a little further (he did not say it could be done at the present time, for he knew the difficulty), and no Parliamentary fees at all need be paid.

Then Mr. PAIN suggested that the Board of Trade should state in writing what were the relaxations of the usual requirements which, in these cases, might be allowed. But if an accident happened, everyone would say, "Why did they allow all those relaxations?" As long as the Board of Trade was asked to sanction relaxations they would sanction nothing. It seemed to him, that to get a satisfactory result it was necessary to begin at the other end, and to say, if a railway wanted, as existing railways did, to run at any possible speed, it must conform to existing regulations; but if it was limited to a maximum speed of, say, 25 miles an hour, then only such and such regulations need be observed. If 12 miles an hour was the limit, then no regulations at all need be complied with, the train being practically run as if it were a cart on the road which was entitled to go 12 miles an hour. He felt sure, as a practical point, it would be better to put the Board of Trade in the position of having to impose obligations where necessary, rather than that they should be permitted to relax where they thought proper.

Then, Mr. PAIN spoke about using second-hand materials, but he thought there were no formal regulations on this point at the present moment; nor, he hoped, would it be suggested to the Board of Trade that they should enforce any such rules.

He thought Mr. PAIN's point that light railways were in a position to develop the agricultural districts even better

than existing railways was a very important one. As an instance of this, within 50 miles of London, along the 18 miles of line between Basingstoke and Winchester, there was only one single point at which a farmer could come on the railway to get rid of his produce. No blame was to be attached to the existing railways, which could not be expected to go to the enormous expense of stations, &c., up to the standard of main-line requirements; but it was, all the same, a considerable drawback to the farmer. On local lines with no expresses running, sidings could be made by simply turning out of the running road; but that could not be done on a main line. Therefore it was, he thought, very true, as Mr. PAIN had said, that a local light railway would often be more valuable to farmers than the main line, passing, perhaps, actually through their fields, but with the nearest station possibly four or five miles off.

But before these railways were possible, it was necessary to educate the public, and to make them understand that the only way a railway company could pay for accommodation for works, and for the purchase of land, was out of the pockets of the people who supplied the traffic and who travelled on the line. The cost could not come out of the pockets of the shareholders, for if shareholders did not go into the business at all, there would be no pockets from which to extract it; in fact, in plain English, unless the public would relax their requirements in the matter of the line running through streets, and so on, they would not get these railways at all. He was sure it was really the key of the situation; and he believed the more the subject was discussed, the better chance there was of arriving eventually at a satisfactory solution.

Mr. WHEELER, Q.C. (Associate), said he hoped it would not be deemed presumptuous on his part to join in

a discussion which, up to that moment, had been conducted on substantially practical lines.

The author of the Paper had pointed out that, after the Act of 1868, very little indeed was done in the way of the formation of light railways, and, with great diffidence and, he hoped, without any suspicion of affectation, he (Mr. WHEELER) claimed to have been, to some extent, responsible for the result. In 1874 the Darenth Valley Tramway, the first light railway of any magnitude or importance, was promoted, and Mr. LITTLER and himself then represented some of the opponents of the Bill, with the result that it was thrown out. He remembered that, when he was leaving the Committee Room, a gentleman (a stranger to him) told him he "had done the worst day's work that he was ever likely to do," but, in spite of that criticism, he felt gratified with the result, as he had merely done his professional duty.

He quite agreed with previous speakers as to the absolute necessity of cutting down what might be termed preliminary expenses. It might perhaps be interesting to state, in passing, that the cost of the Darenth Tramway was estimated at from £2,200 to £2,600 per mile. The scheme was opposed by the South Eastern Railway Company which like all the great companies seemed opposed to the construction of such feeders to their system, and the Bill was rejected.

Passing to another point, the author, in his valuable Paper, had suggested that there should be an alteration in the Parliamentary Standing Orders, an amendment of the Lands Clauses Act, and an enlargement of the powers of the Board of Trade, and had given as a reason for these drastic changes the necessity for alleviating in some way the present agricultural depression. He did not think, from what he could gather, that the "powers that be" would be likely to concede such conditions and altera-

tions. It seemed to him that agricultural necessities must first be better understood in high quarters than at present, otherwise any demand for concessions of the sort based upon the plea of distressed agriculture would be made in vain.

He entirely agreed with what Mr. HOWARD MARTIN said as to the hopelessness of relying on the rates for any aid towards constructing these railways. It became his duty, during the last long vacation, to address several large meetings in the county of Kent on the subject of the Parish Councils Act, and he found invariably that, when any suggestion of increased rates was sounded in the ears of agriculturists, they treated it with derision: any increase would be opposed to the utmost.

Regarding the suggestion of the last speaker (Mr. ACWORTH) that the valuation or assessment authorities should be asked to forego assessing the proposed railways, he, as a member of a rating assessment committee, might candidly tell the Meeting that any hope based upon such an idea was altogether vain, for if there was one question which occupied the minds of rating bodies more than another, it was the momentous one, "What more can we rate?"

One point struck him as of considerable importance, and that was the question of the proposed "rent-charge," in lieu of cash, in payment of compensation. The writer of the Paper suggested that there should be some debentures beyond the ordinary share capital; but if all these rent-charges were created what would become of the debenture capital? If the one were written up the other would be written down. He (Mr. WHEELER) hoped Mr. PAIN would meet and overcome this difficulty.

The vote of thanks having been put and carried unanimously, the discussion was then adjourned.

AT
THE ORDINARY GENERAL MEETING,
Held on Monday, 4th March, 1895.

DANIEL WATNEY (VICE-PRESIDENT) IN THE CHAIR.

The discussion on the Paper read at the last Meeting, by Mr. ARTHUR C. PAIN, M. Inst. C.E., entitled "Light Railways," was resumed by

Professor HENRY ROBINSON (Fellow), who said he was sure all would agree with him that the Paper raised a very important question and one which might be discussed with great advantage, especially by those Members of The Surveyors' Institution whose knowledge of agricultural land enabled them to throw valuable light on that part of the question. It was, he thought, undesirable, in such a discussion, to advocate any particular method of working the proposed light railways, for this might raise a false issue, and interfere with the consideration of the main question.

The Institution would, he thought, do great service in keeping before the public the real condition of the agricultural interest of this country. All knew that Parliament never legislated in advance of public opinion, and if such a subject were over-burdened with details, or with issues not relevant to the main question, a certain amount of obscurity might arise in the lay mind; and its confusion must, to some extent, damage the prospects of the good cause which the author of the Paper had in view.

The question was one, he thought, of more than mere local interest. He had, for a great many years, had much to do

with light and cheap railways, as well as others, and was, he might say, familiar with the difficulties that arose in practice in reconciling the various interests with a view to carrying out the work with due regard to its utility. It was an undoubted fact that, at the present time, a large area of the country was either out of cultivation, or was likely soon to go out of cultivation, and any scheme which could be devised to prevent that undesirable state of things would be a matter, not only of local but of national interest. The population of every large town was becoming congested through the influx of agricultural labour, and if any steps could be taken which would result in some of that congested population being employed either in cultivation by the old method or by newer methods, like those in use on the Continent, thus attracting a fair proportion of the population back to the land which was not now cultivated, it would be a matter of general and not only a local advantage.

It had been said during this discussion that land could not bear more taxation, and if the State would not aid the construction of light railways, the only other alternative was employing part of the millions for which, as had been said, it was difficult to find a remunerative investment. But obviously, not one sovereign of that enormous unused amount would go to the construction of light railways unless it were shewn that those who invested would be benefited and would have a fair interest on the outlay. As to raising the funds in the locality, that must, he thought, largely depend upon the scheme put forward by the promoters. All who were in practice thirty-five years ago knew how the Standing Orders of Parliament and the opposition of land-owners acted in imposing onerous conditions and putting difficulties in the way of promoters. Every possible obstacle was raised in the way of those engaged in carrying out the

preliminary part of the promotion, as well as after the Act had been obtained.

He thought State aid might well be given in at least one well-defined direction, and that was by the abolition of all Parliamentary fees and other useless expenses now imposed on the promotion of railways. State aid, if given in that direction, would enable promoters to carry their schemes forward to a certain point, if the cost of the preliminary steps was comparatively small or moderate, whereas at the present time the enormous expense involved in Parliamentary investigation and preliminary steps was so onerous as to deter promoters at the outset of an undertaking.

He did not agree with those who would lay down any hard-and-fast rule as to the cost of these railways. It had been said in that room, and elsewhere, that a light railway must be made for some specified sum per mile, or it would not pay. But he did not think that was quite the right view to take. It was as well to avoid fixing any definite amount, for in some districts with which he was acquainted lines had cost a little over £3,000 a mile, and had answered better than other lines which, under different conditions, had cost much less. It was not always a question of first cost, and any endeavour to draw a hard-and-fast line which should represent the limit of remunerative cost would be rather a mistake. Circumstances must alter cases. In some places a line would much better bear an increased cost of £500 a mile than in others.

Then, with a view to helping the construction of light railways, it was quite clear that some relaxation was required in the Board of Trade Regulations. In a case he had in mind, which occurred some years ago, it was proposed to expend a certain amount of capital on a railway, and the promoters desired that that railway, ostensibly for mineral purposes, should be so constructed that it could finally be

converted into a passenger line with the sanction of the Board of Trade. They obtained sanction for a light railway and light engines and small speed, and with those conditions the line was worked. He thought they should get the Board of Trade to recognise that a slow-speed railway could be safely worked without all those elaborate requirements of brakes and signals, but rather as a line of omnibus traffic is regulated in a town. A line might easily be worked with perfect safety without signals if the speed were limited. If the Board of Trade did not propose to relax very greatly their present conditions he did not see the use of the Inquiry that had lately been held, or any possibility of the present proposals coming to any practical result. He thought the efforts of Members of the Institution and of all interested in the matter should be directed to putting on record the main points of the case, so that when the proposed Bill reached the Committee stage in the House any modification suggested might possess the weight attaching to the considered opinion of experts.

It was certain, to his mind, that no tax on land by itself, or State aid by itself, would ever make possible the successful construction of a system of light railways such as was contemplated; but there was no reason at all why, by means of the removal of the heavy preliminary expenses, and by assisting promoters in a way that could easily be done by some competent authoritative tribunal taking the preliminary stages into consideration and reporting on the facts of the case like a Government inquiry, such undertakings should not be encouraged. Everything was now threshed out in Committee at enormous cost, the reduction of which would assist the promoters materially, and would enable them to put the preliminary information into shape at a comparatively trifling expense.

He thought the Board of Trade would be a better

tribunal than the County Council. He had a good deal to do with local authorities, and, without disparaging them for a moment, he could not help thinking that there were difficult points to be decided, which they should have nothing to do with. At the same time he could not help perceiving that the tendency of legislation at the present day was to throw all local affairs on to local bodies, and to relieve Parliament of the trouble of sanctioning undertakings as far as was possible ; but Parliament should, after all, be the main tribunal for deciding these matters.

Before promoters of such schemes could expect support they would have to put forward a strong case of public advantage to accrue from the construction of these railways, and to shew that they would tend to prevent the land going out of cultivation. If the land were restored to cultivation, that would in itself benefit a locality by increasing the rateable value, and by bringing the population back.

He felt very strongly as to the question of gauge. He was sure that the lines under consideration should be of such gauge as to enable the trucks to go from the main lines on to the branch lines, and on to the farms and out again. Of course, narrow gauges in some cases were necessary.

He had to consider the question practically some time ago in a case on which he was engaged. The work was very nearly approaching practical completion, when, owing to the defection of one or two landowners, a certain amount of capital was wanting. He was instructed to prepare an alternative plan for a narrow-gauge line, and the change of gauge threw such obstacles into the way of working the traffic, and such difficulties from a financial point of view, that the line did not succeed to anything like the extent which had been hoped for. Under those circumstances he thought it was unwise to depart from the common gauge, and that

it was possible to wreck the chances of an undertaking by adopting a 2 ft. or 3 ft. gauge line with a break of gauge at the junction with the main line.

THE SECRETARY read the following letter, to Mr. PAIN from Mr. R. D. M. LITTLER, Q.C., C.B. (Associate):—

TEMPLE,

4th March, 1895.

DEAR MR. PAIN,

I am very sorry I cannot be present at the discussion on your interesting Paper.

As regards saving of expenses, I am one of those who believe that in *all cases all* Parliamentary fees, beyond such sums as would cover the actual cost of stationery and attendance (if even that), ought to be abolished. The Legislature very properly consider these Bills of importance to the public to such a degree that they keep them in their own hands. I would abolish all fees to the public, to all suitors here and in every Court. It is a practical denial of justice. You open your doors and say, "The Courts be open to you," and then ask an admission fee from a man who is proposing a public benefit if his case is sound, or is opposing a mischief if the promoters' case is unsound, or in the case of an ordinary litigant you tell him the same thing, and if his grievance is genuine expose him to the risk of losing his costs if his enemy is insolvent. If he is a defendant you won't let him show that a claim upon him is a swindle till you have levied toll upon him.

I see no advantage in *any* advertising, provided you can find every owner and occupier, and prove *personal* service of notice where the post has failed, or, failing that, advertising.

I don't agree to the question leaving Parliament and being entrusted to local bodies. The interests are very large and need proper consideration.

I still think a second Committee of great value, but I would allow anyone to go on, on the same petition, unless he desired to add new facts. The proportion of cases going to a second Committee is never large, but when they do go the result often justifies it.

I don't think you will, or ought to, get a State or county guarantee, if for no other reason, because of the door it opens to jobbery.

I think such railways might well be rated at the same as the tenements and lands were rated at, till they pay three per cent., but I scarcely see my way to total exemption. A railway may be ten miles long, running through A, B, C, D. A is close to a station and does not want the line; why should it lose rateable value for another parish which *does* want it?

I would have new regulations prepared for railways limited to six, twelve, and eighteen miles respectively, and would encourage the lines

by making no requirements for the passenger stations at all till three per cent. is earned.

I am sorry I have not time to do more than throw out a few disjointed suggestions, some, as you see, as an "old Parliamentary hand," some from a rating lawyer's, and some from a County Council chairman's, point of view.

Yours truly,

R. D. M. LITTLE.

Mr. B. ELLIS (Visitor) said, that in the course of his business as a contractor, he had to work railways which were really light railways, or "overland routes" as they were called, and had also seen much of their working abroad. He had, therefore, formed some ideas with regard to the question, and it seemed to him that the State or the local authorities could not be relied upon for aid in making these railways. From a practical point of view one of the chief things to consider was what sort of light railways would pay; for, if the railways did not pay, it was not likely that many of them would be made. With that point in view, it seemed to him very doubtful whether it was possible to depend, at any rate to any large extent, upon the returns to be obtained from the carriage of agricultural produce only, and he could not help thinking that, in considering these lines, the prospect of passenger traffic ought to be treated as a very important factor in the question.

He had seen such railways working day by day in Holland, for instance, and other places, and had found that the passenger traffic played a most important part, although there was also a considerable light goods traffic that could be handled easily. That being so, he thought it very desirable that the lines in this country should be laid out as much as possible to catch the passenger traffic, by being made where people could get at them easily—preferably alongside the existing roads.

But, if they could not be laid by the side of the roads

themselves, then the other side of the hedge would be the best place. They should be kept as near the road as possible. He thought that, as a broad rule, the probability was that the main roads throughout the country were generally the shortest routes from one place to another, and another point was that with a railway running on a parallel line with the roads, the crossing gates, and that sort of thing, were, to a large extent, done away with. However much the present regulations were altered, the driver, or the man with him, would have to get down and open and shut the gates at night time, or in bad weather, before a train could go across, which would cause great delay, and should be avoided as much as possible, and if the railway line were along the side of the roads, he thought it would avoid, or at any rate much lessen the number of, such crossing places.

As to cost, he quite agreed with Professor ROBINSON that after the promoters had arranged to take the necessary property (which must be at a reasonable price, or the line should not be made), the equipment was quite a secondary consideration, for, in these days of cheap materials, these railways could be laid at a low cost.

Mr. LESLIE ROBINSON (Visitor) said he thought, speaking as an engineer, that the work of his profession in these matters could not begin until Parliament and the surveyors had done something in the way of cheapening the procedure as it at present existed. Engineers would not, he thought, be found wanting when the time came for them to act and to design light railways; but there were now so many difficulties presented in the way of Parliamentary and legal procedure, that unless, as the result of such discussions of experts as that in which he now had the honour of joining, some means could be taken to educate public opinion, and so give Parliament the lead in the direction of simplifying and

cheapening the preliminary stages, engineers had little opportunity of taking up the matter. His principal experience of light railways had been gained on the Continent, where the majority of such railways were laid to a narrow gauge. This experience led him to think that if similar lines were properly worked in this country there was no reason why they should not pay; but he thought it unwise to approach the problem with ideas that were already set in the direction of adhering to the standard gauge and standard requirements. All English railway engineers were educated, more or less, up to the idea of heavy lines and very large expenditure, but he was sure that unless they could shake themselves loose from a great deal that was now accepted as orthodox the proposed light railways would not pay. The margin was too close.

He ventured to repeat the warning of previous speakers that it was useless to look for monetary aid either from Parliamentary or from local sources. The necessary capital must come from the ordinary financial resources of the country, and he thought that this Institution could bring great influence to bear in the direction both of cheapening the preliminary procedure, and last, but not least, the purchase of land.

He did not think there was much to add to Mr. BEALE's remarks at the last Meeting. His speech was a very able one, and he wished it had been longer; but he might mention that he had lately been furnished with some figures, with reference to a light line which had now been running for some time, which might be of interest to the Meeting. The line was not a very long one, being only about $23\frac{1}{2}$ miles, and the total cost, including equipment and stations, was about £50,600. In 1893 the working left a profit of about £1,500, and during the year just past it left £3,800 after deducting working expenses. What he maintained was

that, if promoters were to wait until there was a ready-made traffic, and if they expected the line from the beginning to be an assured success, they would not do very much. They must work out the whole matter in such a way as to start the line where they thought the development would lead to goods and passenger traffic. He was quite sure that the agricultural produce, although it would form a certain proportion of the receipts, would not be so profitable as the passenger traffic on a line within reasonable distance of a town.

He hoped he might be forgiven for referring to another "bugbear" which often seemed seriously to alarm those interested in these railways—the change of gauge. In Normandy, both in summer and in winter, he had watched the means by which the produce was brought to market. A great deal had been said about "transhipment" and the break of gauge, but here was an enormous amount of produce, such as apples, &c., that came over, by tons and tons, every year to England, and that had to undergo at least five transhipments. It had to be collected from the farms, then transhipped, if he might use the word, to the trains and run down to the coast, and again transferred from the train to the boats coming over to Southampton or Newhaven, and then again transferred from the boats at these ports to our main lines, and, reaching London, had again to be transhipped before it reached the market, where it arrived in a state of preservation and perfection of condition which our own fruit coming from Kent could not compete with. Foreign competition managed to get over transhipment; why should not we do so? He would not attempt to lay down a hard-and-fast rule—he would leave that to gentlemen of greater experience than he possessed; but his own opinion was that it would be wise, in the initial stage of a movement like this, to decide upon two gauges to be adopted—one the ordinary standard gauge of 4 ft. 8½ in.,

and another, say, of 2 ft. 6 in., which could be used in all cases where the wider line was not possible. There should not be a lot of intermediate sizes between the two gauges abovementioned, which, he thought, would meet every requirement.

Mr. M. VIGERS (Fellow) said that, if he rightly understood Mr. PAIN's Paper, it was proposed that light railways should be made by new companies to be formed for the purpose, should be constructed on land to be acquired for the purpose, and should be formed with stations, signals, &c. It was also proposed that power should be given to the companies to compel parishes to levy a rate on all property to be benefited by the railway, and hand it over to the company until they have earned a net 3 per cent. on their ordinary stock for three years.

Great importance was attached to this "betterment" rate, without which the author of the Paper thought that very few light railways would be made, but he (Mr. VIGERS), while he feared that such a rate would be found impracticable, nevertheless hoped that many light railways, or tramways, would be made.

The author recommended that projectors should "get" main line companies to work the lines, if they can persuade them to do so on anything like reasonable terms." He would go further than this, and propose that the main line companies should both make and work the light railways, or tramways. He would, however, with all deference, suggest that these lines, or, at all events, many of them, should be constructed in a somewhat different way from that which he understood Mr. PAIN to recommend.

He would suggest that a general Act should be passed providing that, wherever an existing railway company serving a particular district, or a considerable proportion of

the inhabitants of that district, considered that a light railway, or tramway as he would prefer to call it, would be of advantage to the district, and would also be profitable to the company, a local inquiry should be held by a Board of Trade inspector, and if the inspector's report was in favour of the construction of a tramway, it should be incumbent upon the company to promote a Bill in the next Session of Parliament to empower them to construct that tramway. The Bill should be submitted to a joint Committee of both Houses, who would consider the inspector's report, and only such additional evidence as the Committee might call for should be given. If such a procedure were adopted, together with Mr. PAIN's suggestions for lightening the expenses, he thought that the cost of an Act would be brought within reasonable limits.

As to the construction of the tramways, he would suggest that they should be of the ordinary gauge, connected with the main lines, and, as far as possible, should run at the sides of public roads. Where there was a sufficient width of land between the metalled portion of the highway and the adjoining property, the rails might be laid on that land, but, where there was not, the companies should have power to acquire land, and should be allowed to cross roads upon the level. The tramroads should follow the route of the highroads as far as possible.

Trucks should be provided by the railway companies upon which the producers' wagons and carts could be drawn bodily from the level of the highroad by means of movable inclined planes, which would be carried on the trucks. The trucks should be drawn by light engines (either electric or steam), and these could, by means of ropes, draw the wagons and carts on to the trucks. The trucks might be of different lengths, some to take one wagon or cart and others to take several.

He had consulted the London representatives of one of the large carriage and wagon building companies, who stated that they could, and would be willing to, construct such trucks.

The producers' wagons and carts would be loaded in the fields, farmyards, or factories, and drawn by horses to the nearest point of the tramway in the highroad, where the horses would be taken out, and the wagons or carts drawn up upon the trucks. The trucks would be taken over the tramways to the nearest station on the main line, and from thence sent, in the ordinary way, to the station to which they were consigned, where the carts or wagons would be run off the trucks, and horses again attached to them to take them to market, or wherever they were to go. The wagons and carts could bring back return loads in the same way.

It would seem to him that, if the producers' wagons and carts, after being loaded at home, were sent direct to their destination, without breaking bulk, it would be an advantage both to the producers and to the railway companies, as much would be saved in labour and time. And would not such facilities of carriage be an inducement for starting factories in country places where rents and labour were cheap, and extending the production of butter, eggs, poultry, &c.? Light or perishable things might be put into closed vans, and the vans locked up and sent direct to their destination, with no further trouble to the sender, and with much less trouble and risk to the railway company than at present.

Such tramroads would also be available for passenger traffic, and might be worked in much the same way as the present electric tramways. They should not go faster, and should take up and set down passengers anywhere on the road.

If the tramways were not worked at greater speed, either for passengers or goods, than the present street trams (which would, he thought, be found fast enough), no stations or signals would be necessary, and very little fencing, thus lessening the cost of construction very materially.

For several reasons these tramways would be more likely to succeed if constructed and worked by main line companies than by separate companies. A powerful existing company could raise the necessary capital upon much better terms than a small new company. It would also be able to construct the line more cheaply, particularly as it would probably have old materials which could be used, as suggested by Mr. PAIN.

To afford real assistance to cultivators, the tramways must enable them to get their produce to market more cheaply and quickly than at present, and must open up to them fresh markets. All large towns being connected with one or more of the existing railways, it followed that a tramway should be connected with a main line. The tramway would, in fact, form a gathering and distributing ground for produce and goods to be taken to, and brought from, a main line of railway.

Again, if a tramway were the property of a railway company, it would probably be worked better than under a working agreement with another company.

The tramways would probably not be many miles in length, say from three or four miles up to 10 miles. They would scarcely be large enough to pay separate companies, but the existing great companies could make them at a relatively small expenditure of capital, and could, at very moderate cost, work them as very useful feeders to the main lines.

For all these reasons it seemed to him that the existing

railway companies should construct these tramways, and, further, that it would be to their interest to do so.

The Acts of Parliament under which the railway companies made their lines gave them practical monopolies in certain districts, and such privileges should carry moral obligations to serve these districts in the best possible way. At present, the home producers were severely handicapped by the low rates at which foreign produce was brought into the English markets. These tramways would be certainly one means of assisting the home producers, and it would be to the interest of the railway companies to make them, because they would be a means of bringing traffic to the main lines, apart from the probability of their becoming, in themselves, remunerative when they became established. At the last Meeting Mr. SQUAREY gave a good illustration of the way in which traffic is created by a new line.

The Darent Valley Tramway Bill, 1874 (referred to by Mr. WHEELER at the last Meeting), from Eynsford Station, on the Sevenoaks Branch of the London, Chatham, and Dover Railway, crossing the town of Dartford, and so to the river (about 10 miles), was defeated, principally by the opposition of the South Eastern Railway, of the landowners through whose estates the line would have passed, and of the inhabitants of Dartford.

It was a good while ago, but he (Mr. VIGERS) remembered well having something to do with it, with his late brother, FRANCIS VIGERS. Mr. WHEELER spoke of the opposition of the South Eastern Railway Company, but, if he remembered rightly, that Company's opposition arose principally from the fact that a competing company was more favoured than itself by the Bill. The chief opposition, and the one which he believed Mr. WHEELER himself represented, came from

the owners through whose land the line would have passed, and from some of the inhabitants of High Street, Dartford. The line was to cross the High Street on the level, and the people were afraid of the somewhat large quantity of gunpowder that it was proposed to bring through the town. He thought that was the opposition which weighed most with the Committee. Very good evidence was given in support of the scheme. The Duke of BUCKINGHAM gave his own line as an illustration, and supported the undertaking very strongly. He knew that the decision of the Committee was not unanimous. Times had altered considerably with landowners since then, and he would suggest that it was now to the interest of landowners as well as of the Railway Companies to do all they could to bring back some of the former prosperity to English agriculture.

Mr. R. F. GRANTHAM (Associate) thought there seemed to be a general agreement that light railways would be beneficial to the agricultural districts, as affording facilities for better transport at moderate cost.

In dealing with the question of cost, it seemed to him that the land question was at the root of the difficulty. Looking at the figures given by Mr. PRICE-WILLIAMS on the last occasion, it would be seen that the items for the land, and for the expenses connected with it, constituted rather more than one-third of the whole of his estimate of £2,700 per mile, *i.e.*, there would be about £1,600 or £1,700 left for the railway, and £1,000 would go to the land and works, fencing, and gates, and so forth.

He remembered that his father, so far back as 1873, read a Paper, before the Institution, on Private Agricultural Railways,* in which he gave some details of the works of the railway, between Wootton and Quainton Road, made by the Duke of BUCKINGHAM, principally on his own estate. He

* Surveyors' Inst. "Transactions," vol. v., p. 151.

(the speaker's father) superintended the line, and was in constant communication with the Duke, from whom he obtained the details of the cost. The cost was given in that Paper at rather under £1,400 a mile. That, of course, did not allow for any land, but it included some fencing and gates, and also some slight earthworks and so forth, and the rails were 30 lbs. to the yard. Mr. PRICE-WILLIAMS' estimate was for 60 lb. rails; but, substituting 30 lb. rails for the 60 lb., it would be found that the price in Mr. PRICE-WILLIAMS' estimate was corroborated by the cost which his father gave in his Paper as that of the Duke of BUCKINGHAM's tramway.

He agreed with Dr. PRELLER and Mr. ELLIS that these light railways, or tramways, should be run along the high-road, if they were to be carried out in the most economical way. The cost of land, and of all works in connection with it, would be reduced to a minimum, and frequent sidings could be made to adjacent farms. Several of the previous speakers had deprecated any charge on the parishes, or the making of any rate in a parish through which the line would run; but, if these light railways were going to be a benefit at all in agricultural districts, he did not know who would benefit more than the parish through which the light railway was carried.

He might mention a small matter in connection with some works for which money was being raised, and which he hoped to carry out before long. It was a case of a bridge to connect two main roads, and the County Council had subscribed what was equal to one-third of the estimate. The landowners and other authorities were subscribing a considerable part, and the Parish Council would then contribute half the cost, which was all they could raise under the Public Improvements Act of 1860. Of course he did not mean to suggest that this procedure should be

taken as an exact model to be followed in the case of light railways; but he thought that the fact of such an arrangement having been come to, for the carrying out of a public improvement, was worthy of consideration in discussing this question.

He did not think that Mr. PAIN referred particularly to the construction of light railways, or tramways, on the highroads, and on this point he thought his opinion would be very valuable. Highroads were, of course, generally wider than was really necessary, and, where they were wide enough, lines could easily be constructed, and, where they were not wide enough, there should not be much difficulty in giving the county councils powers to widen them.

Mr. A. VON GLEHN (Visitor) wished to point out, though he could not pretend to do so with any great authority, one or two things with regard to the remarks of two former speakers as to where these lines should be laid down. It had been stated that it would be very desirable to construct them on the sides of the country roads. But, if that were to be done, the idea of using the 4 ft. 8½ in. gauge must be abandoned, for he supposed that very few of our country roads would permit a sufficient width being taken from them. Moreover, a narrow-gauge line would be much more suitable in case of sharp curves and gradients. He would suggest that to call light railways "economic railways" would be more to the point; as the great object to be had in view was economy in every case. He was not an advocate of the narrow gauge exclusively, nor did he care to enter the lists as insisting on the merits of any one gauge as superior to any other. He supposed the matter would settle itself on the question of economy.

A break of gauge had been represented as a great difficulty, but it was not found to be so on the Continent. The expense of transshipment represented only a very small

percentage of the total cost of working the line, and was not to be taken into account in comparison with the great extra cost of the broad gauge, which, he felt sure, could never have sufficient traffic to make such a line pay. The nett profit of the light line mentioned by Mr. LESLIE ROBINSON was, he thought, during its second year, about 7 per cent. on the capital invested in the original equipment and construction, which should be sufficient to attract capital to such investments. The line was one of mixed traffic—passengers and valuable agricultural produce—and afforded an instance of how profitable such mixed traffic was.

Mr. J. H. SABIN (Professional Associate) said he could not approach the question under discussion from an engineer's point of view, but, speaking as a surveyor, it appeared to him to be somewhat remarkable that no reference had been made to a particular light railway with which he was acquainted, and which had been constructed solely for the purpose of facilitating the transport of agricultural produce—he meant the line now worked by the Great Eastern Railway from Wisbeach to Upwell. That was an example of a line constructed on the full gauge, which was laid for the most part along the public road, and which combined all the advantages of a light railway with, he should think, all the possible disadvantages of such an undertaking. It started from the station yard at Wisbeach, ran for some three or four miles along the highroad, dodging out here and there to avoid awkward turns, and ended in a side road in the village of Upwell. For the greater part of the distance it ran in what he might almost call the front gardens of the houses in the village. It drew up under the very windows of a big steam mill, and came occasionally into dangerous proximity to a very deep drain or river. The line was used for passenger traffic. Three or four trains ran each way daily. There was only one actual

station, he believed, on the line, and that was at the terminus ; but stoppages were frequent, and passengers were at liberty to leave the train whenever they could persuade the engine driver to stop, or could make the necessary arrangements with the guard. Here was an example of a wide or standard gauge railway actually running along a highroad for a considerable distance. He found, on referring to "Bradshaw's Manual," that this line was incorporated under an Act of Parliament, and, strange to say, it was dissolved under an Act of Parliament. Under what conditions it existed now he could not tell, but he only knew it was worked by the Great Eastern Railway as part of their system. There was a considerable number of sidings on the line, and the greater part of the traffic was heavy traffic—potatoes and corn principally. From a surveyor's point of view it seemed to him that this was the sort of line that was wanted. First of all, it was in direct communication with the main line, and, notwithstanding the remarks of one of the previous speakers, he thought the question of handling a very serious and a very important one. It might not be a very serious matter in the case of new potatoes, or eggs, or apples, but it was a very serious matter when such produce as potatoes had to be dealt with in large quantities at very low prices, such as had been realised of late years, and also where corn had to be carried at the lowest price.

Such a line had many disadvantages, while it had also great advantages. One disadvantage was that it was worked by an engine of such a shape and construction as to cause serious accidents by frightening horses. It was disguised to look as much as possible like a house, and a horse strongly objected to seeing a house moving on wheels. Something must, he thought, be devised by their engineering *confrères* which would be a little less alarming to the ordinary educated horse if lines were to be run along main roads.

Then, it seemed to him to be very important that the line should be easily fed. Take this line running along the main road as the principal artery. There should be an opportunity of placing on it lighter wagons and trucks than it was constructed to carry, and he had been wondering whether engineers could devise a kind of subsidiary truck which could carry the lighter trucks on the ordinary main line, much as one saw done at goods sidings, where trucks were run on to a kind of carriage for transference, at right angles. If that could be done so as to avoid repeated handling a great step would be gained, for another difficulty had to be considered. The farmer said, "If I have to load up my wagons, and get out my horses, and get my men to work, and carry my produce for a mile and a half to the railway, I may as well take it the whole 8, 9, or 10 miles"—the saving would not be sufficient. What was wanted was a system of feeders to these main lines—lines which might be run into the farmer's stackyard or close to his potato heap. Small wagons might be conveyed by these means to the main line, and put on to properly-constructed trucks in such a way that there should be no further handling until the terminus was reached. He saw no difficulty about the construction of the line on main roads if the question of traction could be got over.

An attempt was made some few years ago to lay a line from Brigg to Lincoln, he believed, and he had seen the site of that line. It was intended to lay it along the side of the road, but sufficient capital was not raised to complete it and the pits, in which the lines were to be laid, were left for many years until somebody had to fill them up and the line was abandoned. But a light line would have been of great importance to the villages between Brigg and Lincoln, and a large amount of traffic might have been carried to the Great Northern and Midland Railways.

As to stations, there should be none. Simple platforms to give access to the carriages would be all that would be wanted, and the guard should be booking clerk and ticket collector, and should, in fact, hold all such other offices as he could be possibly persuaded to take in hand.

Mr. A. R. STENNING (Fellow) said it seemed to be admitted on all hands that light railways would be of great advantage to agriculture, and so must benefit the landowner. One speaker had remarked that it was mainly the cost of the land which prevented many of these schemes being brought forward. He, as frequently acting for landowners, and also for railway companies, quite agreed with that. He thought Members of the Institution who had to advise their clients on such matters might well recommend them to sell their land at the agricultural value, and to omit the large claims put forward so often for severance. The landowners would benefit by having the line laid through their property, and it would not be asking too much of them, he thought, to give up something in order to secure that benefit.

He also agreed with those speakers who thought that these lines should be laid, where possible, along the country roads. In many districts there was a large amount of waste land where tramways could be laid along the sides; and even where the roads were narrow they could, with the assistance of the landowners, be widened. It might be said that a tramline running along the frontage would cut off that frontage, but he thought this objection might be met by laying the tramway in the centre of the road, and only taking off sufficient from the land to give the necessary widening on one side. In this he thought the highway boards might well give a certain amount of assistance, for they would be saved some expense by the construction of these lines.

As to the expense of obtaining the Act of Parliament and the necessary compulsory powers, no doubt this might be considerably reduced, and Mr. PAIN's suggestions on this point were very valuable, although not going so far as Mr. BEALE's contention that the cost might be reduced by 100 per cent.

He was inclined to think the gauge ought to be 4 ft. 8½ in., so that a connection could be made with the main lines. It would then form an integral part of the main line, and there need be no breakage of bulk at all.

These proposed branches might be worked by ordinary light engines, each train having a passenger car, like a tramcar, so that goods and passengers might be taken at the same time. From the two he thought a sufficient return might be secured on a moderate outlay. The first thing to be considered, and the first advice to give to clients, was that, as far as possible, they should encourage the promoters by letting the small portion of land necessary go at a moderate rate. He was sure the want of such concessions often killed a promising scheme.

Mr. H. H. M. SMITH (Visitor) said the Wootton Tramroad (now part of the undertaking of the Oxford and Aylesbury Tramroad), referred to by previous speakers, was about six miles long. It extended from Wootton to Quainton Road, and in a short time would, at that point, form a junction with the Manchester, Sheffield, and Lincolnshire Railway in addition to the existing junction with the Metropolitan Railway, thus enabling passengers to travel from Baker Street to Brill and Oxford in through carriages. In such a case it would, obviously, have been very injudicious to make any break of gauge, and he was certainly in favour of the standard gauge for these tramroads.

Some reference had been made to the cost of this line.

The figures which had been given were not quite accurate. As Secretary to the Tramroad Company he had examined the figures and found the cost of the line, exclusive of land, was about £11,400, equal to £1,900 per mile. It had recently been relaid, and on the 14th December last the Board of Trade certified the line fit for traffic. There were stations with accommodation in compliance with the requirements of the Board of Trade. They were not elaborate, but were adequate for the purpose intended, and they cost £150 each.

When the line was being reinstated, and the Board of Trade's certificate was obtained, it became necessary to see what increased facilities could be given to residents in the locality, by means of a better service. Now that this improved service was in active working, he was bound to say that the results had very far exceeded anticipations. Passenger fares had been reduced to one-half, the number of passengers had increased five times, and the receipts had trebled. In addition to that, the mineral and goods traffic had considerably increased; which, he thought, shewed that, the better the facilities for the carriage of both passengers and goods, the more a line would be used.

This line, following the main road as it did, could, with ordinary care, be worked satisfactorily without interfering with horses or anything else. It had been worked now for 20 years, using all sorts of means of locomotion, without a single passenger having been hurt. That spoke well for the working of the line, and shewed that, with ordinary precautions, no other traffic going along the road would be interfered with.

Mr. GRANTHAM desired to add that he observed that in his father's Paper* the total cost given was nearly as stated by Mr. SMITH, the difference being that his father put down

* See "Trans." Surveyors' Institution, vol. v., pp. 160 and 162.

eight miles (that was including sidings and a mile and a quarter for a branch line), which worked out at the £1,400 he had mentioned.

Mr. S. NICHOLLS (Visitor), speaking as one having had experience in tramways extending over many years, said he saw no great engineering difficulties in the way of the proposed lines, if the regulations of the Board of Trade could be relaxed and the legal difficulties and expenses reduced.

THE CHAIRMAN, in calling upon Mr. PAIN to reply, said he hoped it would not go forth as the opinion of the Institution that the proposed light railways were going to be a panacea for agricultural depression. He knew that these railways were talked of much as if they were going to cure every evil under which agriculture laboured, but, although they might be extremely useful, he thought some more direct and immediate remedy would be required before any alleviation could be effected of the present serious condition of agriculture in this country.

Mr. PAIN, in reply, said one or two points had been raised during the discussion on which he should like to say a few words. The first was on the question of the ordinary roads being the proper routes for lines of this kind. He thoroughly endorsed and concurred in the view that, where roads could be found which were straight and level, and not too narrow, nothing could be cheaper or better than a tramway along such roads, but his experience was that these conditions were very rarely fulfilled—not, perhaps, once in twenty times. In most cases when he was called on to report on districts in this country, in Devonshire or Kent, for instance, or in nearly all the western counties, the roads were narrow, and badly laid out in regard to

gradients, with sharp angles, and therefore utterly unsuitable for tramroads. They resembled W's on plan and W's in section, and tramways laid upon such roads might almost be considered as "switchbacks." In the county of Devon, with which he was very familiar, he had not, in his experience, found a single district where it was possible to put a light railway on a public road. In a few cases where land had been reclaimed from commons, under various Inclosure Acts, droves had been laid out, sometimes 40 ft. wide, which were quite available and very suitable; but there was severance and injury to the fields adjoining because the access was interfered with. Again, in villages, roads were, as a rule, very narrow indeed, and a tramway on them was a considerable source of danger. He knew there were cases, in Ireland particularly, where the tramway was made quite close to the front doors of the houses, but this could hardly be deemed advisable or safe.

A question had been raised as to lighter rolling stock being used. Although light stock might do for the branches, it could not be run on to the main lines, where it would have to be mixed with the main line stock, the shunting of which would knock it all to pieces. On the Cheddar Valley Railway, a branch of the Great Western, a great deal of dead pork was sent up to the Bristol market. It was a great district for milk and cheese and cream: the cream was made into cheese, and the milk used for fattening the pigs. The produce was put on farmers' wagons, and taken into the Bristol market on carriage trucks.

Some time ago he went into the question of designing stock which could be used on the railway and on the roads, but there was this considerable difficulty, that, while a wagon could be run along the railroad with fixed axles, directly it was placed on the highroad it was necessary to adopt some movable form for one pair of wheels. An ingenious

form was adopted by an engineer, by which the flange of the tyre was capable of being lifted when it came on to the ordinary road, thus forming an ordinary wheel, and when on the railway could, by a simple movement of a cam, be converted into a flanged wheel. It was an excellent arrangement, but the difficulty was that the tare of the wagon was so great that it was found, in practice, cheaper to transfer at a cost of about 4*d.* a ton. Those were a few of the practical difficulties that he had looked into.

He quite agreed with the opinion of Mr. MARTIN VIGERS that light railways should be promoted and carried out by main line companies. He had always held that these proposed lines ought to be made by railway companies; but they would not do it. That was the difficulty. They were so accustomed to big transactions, that they said, "What are a few branch lines, and a few extra tons to us?" "It would give us more trouble than it would be worth." These companies would be able to raise the money better, to get through Parliament better, and construct the line far better, and if only railway companies could be educated up to it and could be brought to adopt the principle of subsidiary lines to their own, on a lighter scale, the difficulties in the way of the undertakings now under discussion would be got over, to a very great extent.

He concurred with some of the previous speakers that the real difficulty was the question of the land. He had himself been to a great number of places in this country, and in Ireland and Scotland, to look at various schemes for lines of this description. He would, perhaps, find that everything looked favourable, and then he would say, "Now, about the land?" One said, "This estate is entailed"; the next said he would like to do what was wanted, but he could not. Then they would advise him to approach the railway company, or the London financial people, or con-

tractors. On his going to the railway company, they would ask, "What will the landowners do?" If he went to the contractors they would say, "What are the landowners going to do? Are we to find the money to pay the land-owners?" On going to the City, to see the financial people, the same thing was said. It all travelled back to the one question, "How about the land?"

The cost of the land was given by Mr. PRICE WILLIAMS in his estimate at three acres per mile, at £50 an acre. In his (Mr. PAIN's) experience, it would be nearer £300. An estimate of £50 per acre was, to his mind, absolutely illusory, for the mere value of the land was one thing, but the expense of acquiring the land, and the cost attaching to it, came to nearly six times as much.

He hoped that his Paper, and the discussion, which had shewn how much interest the Members of the Institution took in the matter, might lead to some practical result in threshing out the two main points, namely, how to get the land at a moderate figure, and how to ensure that those who would benefit by the construction of those railways should help towards paying for them.

The Meeting then adjourned.

PAPER ON AGRICULTURAL CREDIT BANKS.

BY ERNEST M. LEMAN, F.S.S.

*Read at the Ordinary General Meeting of THE SURVEYORS'
INSTITUTION, Monday, March 18th, 1895.*

JOHN SHAW (MEMBER OF COUNCIL) IN THE CHAIR.

IN introducing this subject to such an important body as The Surveyors' Institution, I am sure that what I shall say will be listened to with earnest and sympathetic attention, and that impartial consideration will be given to the subject.

Representing, gentlemen, as you do, such vast landed interests, and bearing in mind the present deplorable condition of agriculture, you will, I know, welcome any effort, however feeble, which has for its object the amelioration of the present condition of the agricultural industry.

Personally I could have hoped that this task had fallen into abler hands. I should have preferred that the President of our Association, Mr. ROBERT YERBURGH, M.P., who takes such a deep interest in all that affects the agricultural industry, should have had the honour of addressing you this evening. As, however, it has fallen to me, as representing the Agricultural Banks Association, to read this Paper, I will lay the matter before you as clearly as I can, in the hope that its importance will far outweigh and atone for the shortcomings of the author.

The Agricultural Banks Association was formed about twelve months ago for the purposes of promoting the

establishment of agricultural banks in this country, based upon the principle of co-operative credit. The Association knows no politics. It is not a commercial undertaking, and does not provide funds for the establishment of banks. It is essentially an educative and advisory body. It has already been instrumental in promoting three banks in England, and, under the auspices of the Irish Agricultural Organisation Society, of which the Honourable HORACE PLUNKETT, M.P. (a member of our Committee), is President, another has been formed in Ireland.

The object of these banks is to assist small cultivators and others by the grant of loans at low rates of interest, for productive purposes, and it is believed that their general adoption will be an effective means of teaching all classes of agriculturists the advantages of combination, and the value of co-operation in relation to the production and distribution of produce.

I propose now to give you an outline of the constitution of an agricultural bank, and to shew you how its operations are carried on, so far as they relate to its own members. I shall then proceed to an inquiry into the general condition and needs of English agriculture with a view of shewing how some of them may be met by the establishment of such banks. With your permission I will then pass in review the various results which may be expected to follow their development.

First, then, what is an agricultural bank? How is it constituted? What is the construction of the machine which we desire to put in motion?

Each bank consists of three classes of individuals, viz. :—

- (1) A council of control.
- (2) An executive committee.
- (3) The general body of members.

1. *A council of control* is composed of not less than six

members. Their duties are chiefly of a revising character. They keep an eye upon the executive committee, see to the proper application of loans, from time to time overhaul the securities given by borrowers, see that the responsibility of sureties does not diminish, and, generally, that the rules of the society are complied with.

2. *The executive committee* usually consists of from five to seven members. Their duties relate to granting loans, to receiving deposits, to the election of members, to preparing and furnishing them with proper accounts, and, generally, to the conduct of the business of the bank.

Both the council and the executive committee are elected annually by the members, from whom they derive their authority, and to whom they are responsible. No officer of the society is paid for his services, although the secretary may be paid, but in that event he would not have any voice in the disposal of money.

3. The last class is *the general body of members*.

The number of members which may compose a bank is not fixed, but as a bank can only operate in a limited area (say a village) the number may be said to be limited.

Theoretically, any resident within such area may become a member, but there are certain qualifications insisted upon which practically exclude many.

A candidate desiring election would apply to the secretary. The application would, in due course, be considered by the executive committee, who, in the interests of the society, would accept or reject him upon the faith of their knowledge whether he was or was not a fit person to become a member.

The following are the *powers and privileges of members*.

All primary and ultimate power is vested in the general body of members assembled in general meeting. Every man has one vote, and one only, and this vote he personally

exercises principally once a year at the annual general meeting. At this meeting the council and committee give an account of their stewardship, and the annual report and balance sheet is presented. The officers are re-elected, and the principal business of the society as a whole is transacted.

One of the most important powers of members is to fix the rate of interest to be charged to borrowers and to be paid to depositors.

The principal privilege of a member is the right to a loan at a low rate of interest.

Generally.—Each bank is independent of any other bank, and is separate and complete in itself. It is directly controlled by its members, and is therefore a thoroughly democratic institution. Shares are not necessary, although they may be adopted by some banks, nor is an entrance fee essential to membership. In no case can the profits of a bank or the reserve fund be divided. If a bank for any reason is dissolved, the reserve fund must be applied to some charitable object in the locality where the operations of the bank were carried on.

Now as to *Loans*.—As I have said, the granting of loans is the main object of a bank. An application must be in writing, and must state the object for which the money is required, the period of time for which it is wanted, and the nature of the security offered. Each case is dealt with upon its own merits. As to the *period* of the advance, no hard-and-fast rule can be laid down, but the principle acted upon is so to regulate the date when the loan shall be repaid as to give the borrower sufficient time to make a profit. The period may extend from one to even ten years, but until experience has been gained it is recommended that short loans, whenever possible, should be encouraged.

As to the *purpose* of the loan—this must be strictly adhered to by the borrower, and the instalments punctually

repaid. The interest usually charged is from five to six per cent. per annum.

As to the amount which can be advanced. Under the Friendly Societies Act of 1875 this cannot exceed £50 to any one individual.

In what I have just said I have necessarily been compelled to content myself with the barest possible outline in regard to the constitution of agricultural banks. Later on I shall have occasion to deal more fully with the principles upon which they are based, to explain how their capital is to be obtained, and the safeguards by which their financial stability is secured.

We come now to our inquiry into the general conditions and needs of English agriculture, with a view of shewing how some of them may be met by the establishment of such banks.

As an illustration of the change which has taken place in the cultivated area of land since 1884, the following facts may be interesting. The latest agricultural returns available shew that the total acreage in England and Wales under all kinds of crops in 1893 was 27,753,000 odd, while in 1884 it represented a total of a little over 27,654,000. Of this acreage in 1893 the permanent pasture was 15,226,000, as compared with 14,083,000 in 1884, while the arable land which in 1893 represented 12,626,000, in 1884 stood at 13,570,000. From these figures it appears that in 1893 permanent pasture had increased to the extent of nearly 1,143,000, and that arable had decreased by more than 943,000 acres.

If the inquiry were carried back a further period of ten years, making twenty years in all, these startling figures would be nearly doubled.

No returns shewing the extent to which land has gone out of cultivation are obtainable, but there can be no

doubt it would amount to many thousands of acres. It is well known that there is a large number of derelict farms, and that others, for various reasons, are gradually becoming so.

The depreciation in the *value* of land is no less startling.

According to the report of the Commissioners of Inland Revenue for the year ended 31st of March, 1894, the gross assessments in annual value of lands in the United Kingdom, under Schedule A, were at their highest in 1879-80.

For that year they amounted to (about) £69,600,000

In the year 1892-93 this gross assessment had declined to (about) - 57,000,000

Showing a decrease of (about) - - £12,600,000

To this should be added the capital value of the tax ultimately discharged from the assessment on the ground of agricultural distress, or actually repaid in money in respect of the year 1892-93, amounting to (say) - - - - - 800,000

Therefore, the total apparent decline by the assessments up to 1892-93 is (roughly) - - - - - £13,400,000

If this loss of more than £13,400,000 be calculated at twenty-five years' purchase it shews a loss in capital value in that period of over £335,000,000, while if capitalised at thirty years' purchase, what it was worth a few years ago, we have the enormous total of over £402,000,000.

Taking a typical agricultural county, viz., the county of Norfolk, upon the authority of Mr. EVERETT, M.P., the

capital of landowners during the last twenty years has shrunk by thirty millions, and that of tenant farmers by six and a half millions.

Leaving these general features dealing with figures the significance of which it is almost impossible to grasp, I will turn to the condition of those who are more or less dependent upon the land for their support.

Landlords.—From all quarters comes information that landowners cannot keep up their establishments or meet their liabilities. That even country seats have been closed, with disastrous results to the localities. That there are fewer resident squires than there used to be in every county except Kent and Surrey.

Tenant Farmers.—The most striking feature in regard to their position is evidenced in the Report for 1893 of the Inspector General in Bankruptcy. From this it appears that the total liabilities of farmers who have failed in England and Wales *during the past two years* have doubled. Their increase in that period amounts to more than £338,000, being nearly £127,000 higher than any other industry, and there was an increase of about £216,000 for 1893 as compared with 1892.

The total liabilities of farmers amounted to £678,294 in 1893, out of a total for the more important trades and occupations of £3,127,000, or a little less than a quarter of the whole.

All this depreciation and loss has, of course, not only injuriously affected the agricultural classes, but a vast number of other persons whose interests are so closely bound up with them, such as shopkeepers, mechanics, and others.

Take the Agricultural Labourer. It seems that there are over one million persons employed upon the land.

According to Mr. LITTLE's Report to the Royal Com-

mission on Labour—during the last two decades, the material condition of the agricultural labourer has everywhere improved, and this becomes more apparent when it is compared with that of his class fifty or even twenty-five years ago. No doubt at the present day he is better fed, better clothed, and better educated, that his hours of work are shorter, that the purchasing power of his wages has increased, and that he enjoys more comforts, more independence and political power than ever before, but in many respects his condition is far from satisfactory, especially in respect to the state of his dwellings and his prospects for old age.

No statement of the present condition of agriculture in this country would be complete without a reference to the *depopulation of our rural districts*, which has now extended over so many years. Some have emigrated, but the vast majority have migrated to the towns, there to compete with industrial labour or to swell the army of the unemployed.

From a calculation which has been made, based upon a comparison of the census returns of 1871 and 1891, it appears that the decrease, in the twenty years, of agricultural labourers is 17 per cent., or about 162,000. If to these are added other classes connected with or dependent upon agriculture, it would probably exceed a million.

It would be interesting to know the proportion each county has contributed to the general depopulation of the country districts. The other day it was stated to the Unemployed Committee that 40 per cent. of those who have acted as labourers in Canning Town and South-West Ham are men who have been employed on the land.

There is no doubt that the labour market in all the large towns is very much congested, and the figures recently given of the number of unemployed far exceeds, at the

present time, the total number of labourers employed upon the land, and is simply appalling.

Then, again, it is said there are a million paupers in England and Wales.

This condition of affairs cannot altogether be attributed to the depopulation of the rural districts, but its existence and its extent are a source of real danger to the whole community.

Some people contend that men have left the land because of want of employment and the general conditions of agricultural labour, while others say that their migration was faster when times were good, or comparatively so—that, in fact, their migration brought about a change in agriculture, causing the farmers to resort to machinery and other labour-saving appliances, and to adopt other methods, not being able to obtain good all-round men at a reasonable price.

I do not consider it necessary that I should decide this question, or review, and discriminate upon, the truth or fallacy of the various causes which have been assigned for the present condition of agriculture. To do so would only weary and bewilder you. There is such a mass of conflicting reasons given as to make it almost impossible to tabulate them, and it is doubtful if any good purpose would be served on this occasion by doing so. I have, therefore, contented myself with laying before you generally-admitted facts.

The general condition of agriculture at the present time may, I think, be summed up in the following words. There is deep-seated and far-reaching distress among all classes of the agricultural community. The cultivation of the soil is being abandoned. Large numbers of the rural population have left the land, to engage in occupations under less healthy conditions, and we are ceasing to be an agricultural people. Although the capacity of the

soil is not exhausted, a large portion of it is lying waste or unproductive: the population of the United Kingdom, nevertheless, exhibits no signs of diminution, and the towns are, therefore, overpopulated.

Moreover, this distress has already lasted so long. Beginning about 20 years ago, it has spread over the entire kingdom like an epidemic; partaking no longer of the character of a temporary malady, it now manifests all the symptoms of a chronic disease.

It is no consolation to know that other nations are passing through a period of similar depression; that its ravages are felt alike in the far east as well as in the far west; that, in fact, its extent is universal. It is more important to note that in those European countries where governmental and other aid has been invoked on its behalf—where protective tariffs have been set up, subsidies granted, and premiums paid to those engaged in agricultural pursuits—the distress has been no less keenly felt than in our own country.

The manner of dealing with the present distress has now become a national question of the utmost importance, and the ingenuity of man has almost exhausted itself in its endeavours to solve the problem.

If to improve agriculture it were sufficient to suggest a remedy, that depressed industry would now be one of the most flourishing in the country. There has been no dearth of suggestions, they are overwhelming in their quantity, and every day sees fresh recruits anxious to obtain the credit of having found a panacea. The laurel crown has not yet been awarded. The coveted honour has not yet been allotted. Permit me to say, gentlemen, I am not myself a candidate. Neither am I a critic of the multitudinous schemes propounded; I am only the mouth-piece of a humble institution whose ambition will be satisfied if it

can contribute in the smallest degree to the alleviation of the hardships of the present crisis.

Having inquired into the general condition of agriculture, let us now see what are the principal *needs* of agriculturists, and whether, and to what extent, agricultural banks will relieve them.

Two of these needs are, undoubtedly—

(1) Capital or credit.

(2) Combination or co-operation.

I am far from alleging that they are their only needs. Some say the land laws need improvement; that rents are too high; that the rates and taxes levied are too great and unfair; but with these and other needs I have nothing to do on this occasion. Whatever agricultural banks may do, unlike certain well-known pills, they do not profess to cure everything.

Upon the two needs I have mentioned I think there is more unanimity of opinion, and they both come within the scope of my subject this evening.

Let me deal with the last-named first.

No one will, I think, deny there is nothing in the nature of combination or co-operation existing between the three great classes of agriculturists in this country, *i.e.*, the landlord, the tenant farmer, and the labourer, taken collectively. I may go a step farther, and say that there is very little co-operation existing among men of either class considered separately. That, while other industries and callings have for many years banded themselves together for their common interests, for some reason or other agriculturists do not avail themselves of this force. Some people assert that the interests of these three classes are so distinct and dissimilar, that it is impossible for any union to take place. Only recently, at a meeting of the Farmers' Club in London, it was stated that the present

relations between farmers and agricultural labourers are not so cordial and amicable as they were, partaking now of a more commercial character.

Now, this want of unity is, undoubtedly, deeply to be regretted in the interests of all classes and of agriculture itself. So long as these unsatisfactory relations exist, so long will the prospect of improved conditions be postponed, and any permanent good be made impossible.

The banks which we propose to establish are based upon the principle of co-operation—all for one and one for all—and they claim to unite the sympathy and the interest of each agricultural class in the welfare of their common industry. Later on I will endeavour to explain more fully the manner in which this may be attained.

But the great lack of co-operation is in relation to credit. This brings me to the consideration of the question of Capital.

That landlords and tenant farmers have less capital to employ, and that less capital is employed than formerly, in agricultural pursuits, is universally admitted. This is, however, not due to any lack of money in the country. On all hands we hear bemoanings of the lack of securities for its profitable investment. The *best* securities at present prices only pay very low rates, and investors almost prefer not to invest their money at all, and the amount of unemployed capital is said to run into hundreds of millions.

At the same time we are, practically, the creditors of the world; the total amount of the liabilities of other nations to this country is inestimable. If we sink a few millions in doubtful projects with more or less insolvent States, there is a temporary scare, but our national solvency is not imperilled.

We are content to stand in this pre-eminent position, pouring our treasure on foreign soil, or holding it back from unprofitable employment, whilst our greatest industry is

being shrivelled up, and thousands of our own people are in the direst misery.

True, agriculture, on the old lines, is no longer *regarded* as profitable, and it is said that the *most* that can be done is only to prop it up for a time; that men have already suffered such vast losses, and that the future holds out no hope, and that they are not prepared to throw the little they have left into the sea. It would, of course, be useless to do anything merely to bolster up an insolvent and hopeless industry, enabling it to linger on for a few years, only to come to a crash at last. But, gentlemen, I am not one of those who take the extremely pessimistic view of its condition and future prospects as that just referred to, and I have no doubt there are many men engaged in it who have not lost *all* hope, and who are seeking, by the abandonment of old ideas, and by the adoption of new methods, to realise the hopes which they cherish, and with the aid of fresh capital their prospects of success will be rendered much more easy and certain.

Now, at this stage, I must make it perfectly clear to you that the banks which we propose to establish are not such as will *directly* help the tenant farmer. Our banks are started to supply the deficiency and meet the needs of the small cultivator.

There is no doubt that the want of capital by the tenant farmer is great, and *his* need has not been overlooked by us, but at present the legal and other difficulties in the way of devising a sound and satisfactory scheme have been too great for solution.

Having said this, I hope your interest and attention will not be diminished in the subject we are considering, as, presently, I shall shew that tenant farmers and other classes will materially benefit if our banks are established with success.

Now, how is it that it is so difficult for an agriculturist to obtain the funds he requires, and that, compared with the capitalist, he is placed at such a great disadvantage? The real reason lies in the fact that the latter has credit, while the former, according to generally-accepted ideas in this country, has practically none.

The capitalist maintains his position because he has wealth, which ensures him credit without utilising his cash; the small cultivator, on the contrary, having no cash, is deprived of this advantage. The possession of credit is the possession of a potent means of increasing wealth: its absence prevents the accomplishment of anything. The question is to find a security for the relatively poor man which will take the place of the rich man's cash.

What we want is to discover sufficient "moral guarantees" to "capitalise honesty," in order that it may be accepted as a safe security. In this connection Sir ROBERT MORIER, the eminent financier, says, "the skilled artisans of a community are as good a subject for a mortgage as the steam mill which supplies it with flour, or the broad acres which furnish corn for the mill. All that is wanted is some equally safe means of assigning to the creditors a lien on the former as on the latter."

Why should credit be the monopoly of the rich, when there is such a vast, yea, almost inexhaustible resource of power calling for exercise in the industry, thrift, sobriety, and honesty of the nation's workers—men who are second to none in any country of the world for the possession of such sterling qualities? How much benefit would accrue to the community if money could be readily, easily, and at a cheap rate placed in the hands of those who could make it productive by their energy and industry? By how much would our proportionate taxes, our charity, and poor rates be reduced?

Some will say that credit is now obtainable. Yes, but at what cost? It is the credit of dealers, of middlemen, and money-lenders. Many small cultivators cannot get even this.

We are all aware of the unfavourable operation of dealers' credit—of the manure merchant who allows credit for a certain time, but not long enough to enable the crop to which it was applied to be sold; of the accommodation given to the stock farmer which precludes his getting the benefit of an open market; of the army of middlemen who take toll and reduce the farmer's return to a mere pittance, not sufficient to pay him for his trouble, and sometimes not out-of-pocket expenses. We know how the adoption of such means has compelled him to buy inferior articles, often to sell at a loss, and prevented him not only making one profit, but sometimes two or three; his industry being debased, and he himself only sunk more deeply in the mire.

We all know too that he can no longer obtain the facilities he once enjoyed of borrowing from his local banks, many of which, acting from instructions from head-quarters, have closed their doors in his face. And this is not surprising: our ordinary banks are principally deposit banks; they are profit-earning machines which must pay salaries, rents, and, above all, dividends. They can therefore only accept good and tangible and easily realisable security, and the best securities are only held by the rich and the comparatively well-to-do. They do not lend on honesty, even if it is capitalised. In this country we have no banks to supply capital for purely productive purposes. They have them, however, in Scotland and France, with beneficial results.

A consequence of this is that farmers are driven to seek advances from the financial harpies of the Metropolis and other centres, to resort to money-lenders, whose average

rate of interest is sixty per cent., and whose unscrupulous methods have just been ruthlessly exposed by Mr. THOMAS FARROW, the Honorary Secretary of my Association, in his powerfully written work, "The Money-Lender."

What a vast army of middlemen, of money-lenders, and usurers would be out of employment if our ordinary banks assisted producers as the Banquiers of France do the farmers of Provence !

Now, the banks which we advocate will meet the difficulty of small cultivators and even small farmers, and enable them to obtain on credit the necessary funds which they require, upon payment of a reasonable rate of interest. They bridge over the gulf between capital and labour by making every man "his own capitalist." They unite together the honesty of many, and by that means form a security which, for all practical purposes, is as safe and as good as the security of the wealthier classes. For while it is impossible for one individual small cultivator to secure an advance upon his personal security, it is hardly possible that fifty such men would fail to obtain it upon the collective guarantee of their fifty signatures. There is no more regular and scrupulous borrower than one of such men borrowing from an institution based upon popular and generally co-operative principles. His sense of responsibility and honour is aroused. He knows that to fail in his payments would be to bring loss upon men in his own position—fellow agriculturists, it may be, struggling like himself. He enjoys their confidence, and to lose his good character would be to lose his all. Hence, it happens that abroad such institutions have never suffered any loss, and the security of character has been demonstrated to be sound, practicable, and safe.

I have already mentioned the phrase "co-operative credit," and it is an apt description of the credit which our banks seek to introduce into this country. England takes

the lead in co-operative supply, and France in co-operative production, but it is to Germany we owe the application of co-operation to credit. The co-operative societies so long established in this country are familiar to all, they are second to none, and their success entitles them to the envy and admiration of all peoples. Co-operation and credit are the two pillars which support the fabric of co-operative credit. While the principle is new, and contrary to our existing ideas of economics, there is no reason why co-operation should not be applied to credit with as much success as that which has followed its application to supply. There is nothing in our commercial system which makes it unsuitable, and certainly nothing in the nature of our countrymen which makes them unfit to receive and appreciate that which has produced so great a revolution abroad. They are certainly not less honest, less trustworthy, less devoid of honour, and they have, undoubtedly, in a high degree the same faculty of association.

You will, I think, now realise the close connection there is between co-operation and credit, and understand what is meant by the principle of "co-operative credit."

Now, it may be urged as an objection to our banks, with some show of reason, that there is a natural indisposition among most men to borrow—that there is some sort of stigma attached to it. This sentiment may probably be attributed to a fear that their creditors would know of their position, and that, in consequence, their credit would be lessened and their reputation injuriously affected. It is true that this feeling does exist, but it is in no way confined to Englishmen, being common to all men, whatever their nationality. But, although said to be so common, the amount of borrowing which is indulged in is enormous. A man will, perhaps, put up with much inconvenience before he will borrow, but, when he sees no prospect before him but ruin, his sentiment

gives way to his necessity, and, unfortunately, as I have already said, he often becomes the prey of professional money-lenders, who live upon the misfortunes of others, and whose only care is to secure themselves, whatever the result may be to their victims. I am now, of course, speaking of men who are not possessed of much property, and it is this class who, in the first instance, are least disposed to borrow; for, as a matter of fact, a rich man mortgages his property without any qualms of conscience, and the trader boasts of his credit—indeed, the greater his credit, the greater his financial reputation.

But why should a man who is a member of one of our banks hesitate to borrow? By borrowing from such a bank he is only taking advantage of the power given by the union of individual credits in one strong credit. Besides, he has lent *his* honesty, *his* character, "*his* credit," to the society, and is, therefore, entitled to a loan if he wants it. The men who lend him the money, *i.e.*, the other members of the society, are men mainly of his own class residing in his own district, familiar with his affairs and with the conditions of his industry, who can, from their own experience, understand and appreciate his particular needs. They, too, may themselves become borrowers. In each case when a loan is applied for, the purpose must be stated, and this purpose must always be a productive one. The application is, therefore, sure to be *bonâ fide*, and if it be granted the liability of all the members will be jointly pledged.

This brings me to a consideration of the principle called "*unlimited liability*," which is one of the greatest guarantees of financial stability which are offered by the banks. The principle is not unknown in this country, but in its application to granting loans it is a departure from ordinary procedure. Now, in the case of a bank started upon our

plan, each and every member would be personally responsible for the whole amount lent, or liability incurred, by the bank. At first sight, one is rather inclined to be alarmed at the principle, but, in practice, it has not only ensured confidence, but secured success. Abroad, a strong preference for the principle of unlimited liability has been manifested. For instance, in Germany, in 1891, 3,746, or about 95·8 per cent. of the whole number of credit and loan associations, were based upon this principle. It ensures great care and discrimination in granting loans, their punctual repayment and the application of the money to the purposes for which it was borrowed. Besides this, it secures on the part of the members the obligation to watch over the loan and see to its repayment, as any default would entail loss upon them. As an instance of how this operates abroad, I may quote Signor WOLLEMBORG, who says in his Report on the Italian Rural Banks:—"The peasants of Lorregia say of themselves, We are a hundred men who keep watch over one another: it is impossible for any one to fail in his duty."

While this is the principal guarantee which the banks offer, it is by no means the only safeguard. There is

2. *The scrupulous care exercised in the election of members.*

No man who is not of undoubted good character is eligible, and cases have been known abroad where men have made repeated efforts to be enrolled as members of similar societies, their election having been refused on account of some vicious habit. The fact that a man has been refused, and is not deemed a fit and proper person to become a member, has even acted as a strong moral force, and made him renounce his habit in order to secure election.

It must be apparent to all that the knowledge in a community that a body of men are exercising so great care in electing members is calculated to create and maintain

the confidence of the community in the stability of such a society.

3. In the next place, there is *the limitation of area*. This means that the extent of the district in which a society can operate is limited to a parish, or, where it is small, it may include the neighbouring parish. The consequence is that only people residing in this district can become members, and, as is well known, in a country village, everyone knows all about his neighbour; therefore the chance of unfit persons being elected is very remote, if not impossible. Besides this, the members borrowing being within easy touch of one another, there is little likelihood that they will fail in their obligations, and their mutual interest in one another, being neighbours, is sure to be greater than if they were strangers.

4. Then, there is *the specific purpose of the loan*. This purpose must be one which offers a good prospect of a profit being realised by the undertaking, such as the purchase of a cow or a pig, seeds, manure, a plough, and such like.

The executive committee is most exacting in respect to the application of the money, and, if it is not properly applied, it is promptly called in.

5. Further, we have *the supervision of the council of control*, whose duties I have already mentioned when considering the constitution of a bank.

6. In the next place *every borrower must find one or more sureties*, who will act as bondsmen for the due and punctual payment of his loan. These need not be men of his own position, although they are obviously preferred.

7. In the last place, there is *the reserve fund*, which is formed by the profit made on lending money and receiving deposits. Taking the interest paid by borrowers at 5 or 6 per cent. per annum, and the interest paid to depositors as 3 or 4 per cent. per annum, there will be

a margin of 2 or 3 per cent., which would go to the reserve fund, after payment of expenses, to meet possible loss by the default of borrowers and their sureties; a contingency rarely likely to occur.

I may here mention that when borrowed money is applied to an insurable object an insurance would be effected. This, however, is more in the nature of a precaution than an additional safeguard.

From what I have said of the kind of credit which we propose to create, I think you will admit that it offers safe security, entitling it to rank with the ordinary assignable securities with which we are familiar. I claim also to have shewn that no one borrowing upon such conditions need have any fear of loss of credit or reputation.

Further than this, there will be little likelihood of waste, of fraud, or of misapplication of the funds which this credit will create, as there might be if the money were derived from the State or from charity.

The application of State funds would, I think, be unfair to the general body of ratepayers, and, moreover, be laying down a precedent which might hereafter, if acted upon, entail disastrous consequences to the whole community. It is a growing tendency of the times, when any malady needs to be cured, to call for the "enervating medicine of State help." A loan from a wealthy man might be regarded as an advance which need not be repaid.

It is a trite saying that money easily got is quickly spent. It may even become a premium upon fraud and misapplication, and is certainly a temptation to prodigality which few can resist.

This brings me to the question of how the money for starting banks is to be found. Having got the security, we must now find the capital. There are two ways in which this can be done, viz., by deposits from members and others,

and by guarantees of a fixed amount for a specified time, and upon certain agreed conditions.

First, then, *Deposits*. Abroad, deposits are a great feature, and very large sums are received by the banks, both from members and non-members. In this country, the Act under which our banks are established does not allow deposits to be received from non-members. There is, however, power vested in the Treasury by which this disability may be removed. We have taken steps with a view of getting it removed which, we think, will be successful. But we do not expect much in the way of deposits until the banks have made a fair start and the people understand them.

Now, as to *Guarantees*. These may be obtained in various ways. Existing banks may be disposed to place a sum of money to the credit of the village bank, and allow its members to draw upon it, in various amounts, as is done abroad. Until, however, confidence is placed in the system, and our existing private or joint-stock banks have proved our banks safe, we do not look for much support even in this direction. I am glad to say that some banks already recognise that our banks are not competitors with theirs, and that we may be the means of introducing new customers who cannot now avail themselves of the facilities they offer.

The source, however, from which we do look for much help, is for local gentlemen, either individually or collectively, to guarantee a certain sum, say, £100 or £200, at their own bank, in the shape of an open drawing account.

Hitherto we have found no difficulty in obtaining the necessary capital in this way, and we do not think there will be any difficulty in the future. The guarantors will receive a fair rate of interest for the use of their money, and they will be secured by the collective credit of the whole body of members, and in various other ways.

Of the three banks which have already been formed,

£350, £200, and £100 have been respectively provided, and we have in other places amounts offered so soon as banks can be started.

I have described, as briefly as I can, the general condition of the various classes of the agricultural community. I have indicated what are their principal needs, viz., credit and co-operation, and have at some length explained the difficulties which beset the agricultural industry in regard to them. I have shewn that the great want of small cultivators is a safe security upon which they can borrow at a moderate rate of interest, and by the explanation which I have given you of the principles upon which it is proposed to found agricultural credit banks, I have, I hope, satisfactorily demonstrated that they will meet the requirements of this class in this matter.

But there is yet one other point to which I must refer, and that is, the peculiar opportuneness of the present time for the establishment of such banks in this country, by reason of the facilities which now exist for obtaining allotments.

Various Acts have been passed by the legislature in recent years with the object of creating a peasant proprietary. The principal of these are the Allotments Acts of 1882, 1887, and 1890, the Small Holdings Act of 1892, and last, but not least, the Local Government Act (commonly called the Parish Councils Act) of last year. Their existence is an evidence that all Parties in the State are of opinion that great advantage will ensue to the whole community from the creation and extension of allotments and small holdings in this country.

Leaving out of consideration the Parish Councils Act, their effect has already tended towards a large increase of the number of small cultivators. In 1890 there were more than a million occupying less than five acres. This, un-

doubtedly, includes a large number of shopkeepers, village tradesmen, and others.

It appears that in 1873 there were 242,542 allotments under one acre; in 1890 there were 441,024. The increase, therefore, in 17 years was at the rate of 81·1 per cent. The compulsory powers of the Parish Councils Act of 1894 are, however, calculated to greatly stimulate their increase.

The whole question of allotments is a very interesting subject, but differences of opinion exist, and to deal with it fairly would occupy far too much time, and would probably raise much unnecessary controversy. I think it is, however, generally admitted that in some quarters they are not regarded with great favour. Personally, I believe, they will be very beneficial to agriculture in many ways, that they will assist in retaining men on the land by creating greater interest in rural life, and by affording them an opportunity to improve their position.

In this connection may I ask what other industry and occupation is there which does not afford opportunities to industrious, intelligent, and energetic men to gratify their laudable ambition to improve their position and status, and advance in the social scale? Why should not agricultural labourers have the same opportunity?

Since the legislature has made the acquisition of allotments so easy; since men of all parties are agreed in the opinion that this system of cultivation is desirable and should be encouraged; since the old methods of agriculture have admittedly failed to make agriculture pay, owing to various causes, of which low prices, due to foreign competition, is one; since there is no immediate hope of raising prices by a return to protection (even if it would do all its advocates believe); and since there is no possibility, under present conditions, of devising a scheme whereby fresh capital may be induced to flow upon the land for the benefit

of larger farmers; and since, too, there is such a vast army of unemployed in our towns, brought about in a large measure through the depopulation of our villages, would it not be both reasonable and prudent for all men interested in the land to abandon all prejudice, and sink their differences, by encouraging the multiplication of holdings and allotments for small cultivators on reasonable terms?

In order to properly cultivate such allotments, their holders would, undoubtedly, require capital, but I have already shewn that if the banks we recommend are established all over the country this initial difficulty would be adequately met.

I proceed now to consider the various results which are likely to accrue to the agricultural industry and the country at large if such banks are successfully founded and developed to any great extent.

No doubt, in the first place, the knowledge by this class that capital could be readily and easily obtained at a low rate of interest, for productive purposes, would induce a large number already employed on the land to avail themselves of the facilities so offered.

Besides which, a knowledge that land and capital were available would incline men who are now pent up in our smoky cities, living in vitiated atmospheres, in the confines of courts and alleys, borne down by the strain and stress of city life, to gladly seize the opportunity of breathing again the fresh, pure air of country life, and gratify that innate desire for greater freedom which is only to be found in rural districts. By this means the present congested condition of our towns would be relieved, there would be proportionately less competition in the labour markets, and the dangers feared from the existence of so many unemployed considerably lessened.

But we maintain that a far more important result than

bringing men back to the land will be achieved by the retention of men on the land. I have already referred to the serious depopulation of our country districts, and to the difficulty there is of obtaining good all-round men equal to the old stamp, and to the lack of opportunities a man has for rising. This in itself is a very grave condition of affairs, and suggests a realisation of the fear expressed by GOLDSMITH, in "The Deserted Village":—

"A bold peasantry, their country's pride,
When once destroyed, can never be supplied."

By creating in them a spirit of independence and interest in the land, we believe we shall prevent this absolute destruction and be creating a bond between the peasant and the soil which will not easily be broken, and which will confer a benefit upon agriculturists as a whole.

We should contribute to the development of an intelligent, thrifty, independent, and industrious peasantry, and to the formation of a class similar to that which exists in many Continental countries, where they are the backbone of the nations of which they form a part. Such a class in this country would be second to none, for the exercise of all those qualities and virtues of which, when necessity and opportunities demand, Englishmen are possessed.

We should certainly make the land more productive. There is no more potent force than that called into operation when a man feels that as he sows so will he reap; that his profits and happiness will be in direct proportion to his industry and thrift. What sacrifices it induces, what latent energies it discovers, what resource, what skill, and what intelligence it develops—knowing that the yield of the soil depends in a large measure upon the care which is bestowed upon it, he will plough and manure it, and exercise all his faculties in his endeavour to make it as productive as possible! If this same care and attention were bestowed by

every holder upon his allotment, by how much would the productive power of the country be increased! It could, it is stated, easily be made to produce three times its present yield.

It may be interesting to mention the proportion in which cows are distributed to the acreage of permanent pasturage in some other countries as compared with our own.

In France, there is one to every	-	2	acres.
„ Germany	„	1½	„
„ Belgium	„	1¼	„
„ Jersey	„	½	acre.

While in England, there is only one to

every - - - - - 7 acres.

Besides, if the small holder succeeds in making the land more productive, he will likewise make it more profitable.

It has been said again and again that this class have suffered least from the prevailing depression. This is confirmed by Sir J. B. LAWES, in an article in the Mark Lane Express Almanac for 1893, where, referring to the United Kingdom, he says, “those who have suffered the least are “small dairy farmers renting fairly good pasture land, selling milk, butter, and cheese, and employing no labourers, “all the work being done by the members of the family.”

The small holder will not, of course, grow such unprofitable things as wheat, &c., but, turning his attention to more profitable things, such as those just mentioned, he will be able to supply our own markets and obtain a good price. It is well known there is plenty of demand for English produce, but it cannot be got with uniformity, regularity, and certainty. Take the case of eggs. Foreign eggs come to this country at regular intervals, packed in boxes of the same size, sorted carefully according to their weights and dimensions. In this country they generally come to the market in dribbles, sometimes there is a glut of them, some-

times it is impossible to get any at all, but the difficulty merchants and shopkeepers find in getting them regularly has led them to abandon the attempt to deal with English dairy farmers. The same applies to butter, though in both cases English articles are preferred by the consumer, and usually fetch a higher price than the foreign article.

Here, then, is a wide and remunerative field for the energies of small cultivators. Yes, and for farmers, too, if they are only prepared to take advantage of it. By this means, that vast quantity of produce which we annually import would be effectually checked, and the equally vast sums of money which now are sent abroad would be retained in this country for the benefit of our own people.

Consider for a moment what it represents. The total value of this produce has been variously estimated at about £100,000,000, £60,000,000, and £30,000,000 per annum, according to the various articles included. For my purpose, however, it is quite sufficient to state that for the year ended December 1894, according to the Board of Trade Returns recently issued, imported butter, margarine, cheese, and eggs alone represented a total value of £25,768,657.

Here are the figures:—

	Quantity.	Value.
Butter	2,576,000 cwt.	£13,470,419
Margarine	1,109,000 „	3,044,781
Cheese	2,263,000 „	5,467,137
Eggs	11,877,000 great hundreds (i.e., 1,425,240,000)	3,786,320

£25,768,657

In addition to these articles I may add that
we pay to foreign countries for

Potatoes	1,030,091
And for Apples	1,376,411

Adding these to the total I have mentioned,

we get £28,175,159

I take no account of other fruits and vegetables, nor do I think it necessary to give you the items for poultry, lard, bacon, and hams. These last-named articles shew a total for last year of over £14,000,000.

If we confine ourselves to dairy produce alone, of which I have given you particulars, the total is startling, and gives us some idea of the wealth which is annually sent out of the country.

Now, a very large proportion of all this produce could very well be grown and produced in this country. Prince KROPOTKIN, estimates that if the area of the United Kingdom were only cultivated as the soil is in Belgium (which by the bye is a country of small cultivators), we should not only be able to grow enough for our own wants, but be able to export produce as well.

I am well aware that some will say, "Yes, I quite admit all you say about producing these articles, but where shall we find markets for them when we have grown them? How will this help us to oust the foreigner, and divert this money from his pockets into those of our own people?"

I know that railway rates are very high, and that we have no organised system of collection, that as a result of this it is said a great many fruit growers in Kent last autumn allowed their plums to remain rather than incur the expense of having them picked, and that it is cheaper for a farmer to send his goods to London by way of the United States than overland direct. Steam and machinery are two very useful forces, which have done much for the cause of civilisation in this nineteenth century, although in doing it they have brought about many revolutions, not the least of which is the changed condition of agriculture in this country. But I'm afraid it is too late now to check the development of these mighty forces. We must take things as they are, and, facing

the changed condition of the times, do our best as agriculturists to turn these agencies to our own advantage. Already light railways are promised, in the interests of the producer. How far they will meet the difficulty it is impossible to say. That these obstacles are real no one will deny, and if by any means the number of small cultivators be increased, and they are able through the agency of agricultural banks to produce any large quantity of this dairy produce, I think they will soon be removed. Once let it be known to merchants and consumers that they can get what they require in this country, it is hardly likely that railway and other carrying companies will long continue to maintain their present rates, but, realising that their interests are at stake, they will grant facilities for bringing it to market at least equal to those which they now accord to our foreign competitors. It seems strange that they do not do it now, that, indeed, they should prefer to run goods trains capable of carrying 200 or 300 tons with only 40 or 50 tons, since the extra cost to the company would be comparatively very small.

But, if the condition of English agriculture ever succeeds in creating a demand and supplying it, and the railway and other companies persist in their present unreasonable attitude, it is certain the growers will not hesitate long to take the matter into their own hands, and, by establishing a system of collection and delivery of their own, do what has for so long been well and efficiently done abroad. By the adoption of such methods they would only be applying the principle of co-operation to collection and distribution, and realising one of the effects which I anticipate will follow the establishment of agricultural credit banks. There is, however, another alternative which the same agency of co-operation might equally effect. Strong, because united, they would be able to compel the

railway companies to reduce their tariffs, and even to carry their goods at preferential rates.

When these advantages have been gained, the way will have been paved for a closer alliance between all classes of agriculturists, for it is impossible to benefit one class without at the same time benefiting all; and this brings me to the results which will accrue to larger farmers.

It has been well said, "Nothing succeeds like success," and that is true of agriculture as of anything else. When larger farmers are brought face to face with undeniable evidence of the success which, I believe, will result to the small cultivators, from the general adoption in this country of what is known abroad as *la petite culture*, they will cease to look upon the enterprise with a jealous eye, and will cease to regard it as hostile to their own welfare. I even anticipate that they themselves, realising that it is a source of profit, will hasten to adopt the system, and that landlords and landowners will be only too ready to facilitate its development by splitting up their estates and farms now so unwieldy, barren, and unprofitable.

The increasing interest which will be taken in the soil by the smaller men, and the consequently greater demand for land, will yield to the owners of land a good, a regular, and a very much increased return. It is certain that their rents will be punctually and regularly paid, for there is no more scrupulous rent-payer than the small cultivator—at least, such is the tribute paid to this class of men abroad, thanks to the business habits instilled into them through the educative influences of agricultural co-operative credit banks.

Further, an efficient¹ training school will have been established for young men,² who, no longer anxious for town life, with a development of greater interest in the villages, and more profitable employment and scope in the country,

will form a nucleus for a new order of well-equipped agricultural labourers. The fathers trained, by membership of the banks and by experience in their holdings, in habits of thrift, sobriety, self-reliance, and co-operation, it may be expected that the sons will realise the advantages of those virtues and follow in their footsteps. The increased desire and need for scientific knowledge in agricultural and horticultural pursuits will make it impossible for the establishment of local training institutions to be much longer delayed, and there will be reared a class of intelligent, industrious, and skilled men who will be of inestimable value to larger farmers. The greater profits obtainable will enable better wages to be paid to them for their better services, and, enjoying, as they will, the hope of one day improving their position and becoming cultivators or employers themselves, there is no reason why employers and employed should not maintain the best relations. Indeed, since the interests of all will be bound up together, there is every reason to believe that owner, tenant, and labourer will do everything they can to promote each other's welfare.

The advantage to the whole community from such results as these must be apparent to all. Towards furthering them, I think agricultural banks will largely contribute.

But *why* do I believe that they will ensue from the adoption of the methods I have described ?

In the first place, because these banks, as I have already explained, are based upon sound economic principles, and because they are sufficiently safeguarded to secure them against loss. To what I have said on this point I will not here add further comment.

But the strongest reason for my belief is based upon the fact that they have done *all* this abroad. I have already occupied so much of your time and made so great

a demand upon your patience, that I can only briefly epitomise their influence on other countries.

About the year 1848, in a small provincial town of Saxony, Burgomaster **RAIFFEISEN**, moved by the terrible condition in which the surrounding peasantry were obliged to live, conceived the idea of applying the principles of co-operation as a means of alleviating their distress. Accordingly, collecting funds, he established a co-operative bakery, and subsequently a co-operative cattle-purchase association. So successful were these experiments that in 1849 he carried the principle a step further, by applying it to credit. This was the origin of agricultural credit banks. It is true that about the same time Herr **SCHULTZE**, of Delitsche, a town in the east of Germany, established a co-operative bank, but his banks are not confined to one particular class, and they are now commonly known as "People's Banks." They gave only short credit, aimed principally at business, accepted almost any kind of security with the exception of the three securities, viz., character, the specific employment of the loan, and the limited area of the district, which particularly distinguish the Raiffeisen banks. Necessity is the mother of invention. Famine and usury had reduced the country and people to an almost hopeless state: it is to these causes we owe the beneficent system of co-operative credit.

It was five years before the second Raiffeisen bank was started, another eight years before the third, and another six years before the fourth, altogether a period of twenty years elapsed before four banks were in existence. Until 1880 their growth continued slow and uncertain, but during the last fourteen years they increased with marvellous rapidity, so that at the present time there are over 1,300 in the German Empire.

They have, besides, found many imitators, and very many other associations have sprung up which differ very little

from those originally founded. The result is that there are upwards of 8,800 Co-operative Societies, for various purposes, in Germany at the present time.

In 1883, Signor WOLLEMBORG introduced them into Italy, where their success has been equally remarkable.

In 1886, they established a footing in Austria, where, with the assistance of the Provincial Governments and Diets of the Empire, they were enabled in 1892 to register a number of 245.

They have also recently been established in France. Indeed, they are said not to be unknown in autocratic Russia, and even in belligerent China and Japan.

Be this as it may, Co-operative Societies based on these or similar principles exist and abound to-day in almost every country of Europe. We find them in Spain and Scandinavia, in Belgium and Switzerland, in Denmark and Hungary. They are established, therefore, among peoples who are most diametrically opposed, in national government, in creed, in temperament and habits, existing under the most diverse conditions, and they have proved themselves of the utmost advantage to all.

It is not to be supposed that they have attained their present position without incurring much opposition and criticism, but in every case they have passed through the ordeal as gold through the refiner's fire. In 1874, in Germany, a Royal Commission was appointed to inquire into the methods of operation of Raiffeisen Banks, and the manner in which they stood this crucial test may be best summed up by the fact that the late Emperor WILLIAM I. and, subsequently, the present Emperor have deemed them worthy of their financial support.

In the wars of 1866 and 1870 we find that money in large amounts was pressed upon them for safe keeping, even without interest, so great was the confidence placed in

their stability, and during the terribly severe drought of 1893, they were in a position to render immense service to the agricultural community. Their stability and reputation is further attested by the fact that national and other banks make them large advances, and that even trust moneys are allowed to be deposited with them.

The position of Raiffeisen and other similar banks was well shewn in a recent letter of Mr. WOLFF to the *St. James's Gazette*, from which it appears that, according to German statistics for 1892, something like £10,000,000 was lent out annually to country folks, whilst 1,038 banks of the Schultze-Delitzsche type lent out, in the same period, £76,000,000. Further, that, altogether, co-operative credit set in motion in Germany in 1892 something like £24,000,000 on easy terms, for the benefit of large and small farmers.

Suffice it to say that the *moral* effects of such societies upon the Continent have been no less startling. Besides this, they have effectually stamped out usury wherever they have been established.

Now, banks which have been able to do all this, and much more in so many countries, and under so many conditions, are, I think, capable of producing equally remarkable results in this country.

When they are able, for instance, to do this in an empire like Austria, so divided as it is by race and religion and political government; when Germans and Magyars, Italians and Slavs, Dutchmen and Swiss, Turks and Chinese, are able to adapt co-operative credit to their respective needs, it may well be asked why Englishmen should fail. With their native genius and practical qualities, with their unrivalled pre-eminence in the arts of civilisation, in the van of progress, why should they lag behind in the application of the principle of co-operation to monetary science?

It has been well said the symbol of these banks is

solidarity, their basis is co-operation, and their force combination.

By the adoption of these principles, and acting upon them, the foreigner has been able in no small degree to flood our markets with his produce. For to these agencies by many this result is attributed.

Abroad, too, they have encouraged the principles of self-help and thrift, but in the practice of these virtues it cannot be said as a nation we are deficient, although they may well be welcomed if they can by any means make the adoption of them more universal.

An eminent Englishman has said it is "self-help which makes the man, it is thrift by which self-help for the masses dependent upon labour is principally made effective." Let co-operation be added to this, and we have at once a most potent force.

It is said there are 1,200,000 members of Trade Unions which have a revenue of £1,700,000 a year, 28,000 Friendly Societies with £22,000,000, and 1,600 Co-operative Societies with a capital of £17,000,000, and that Building Societies have gathered together £56,000,000. In 1893 there was an increase of Savings Banks deposits of £7,000,000, and the total standing to the credit of depositors in these Banks was no less a sum than £138,000,000.

All these vast sums represent the energy and thrift of the working classes.

When so much has been done by self-help and co-operation for other industries, I think we may confidently hope that the same agencies are capable of doing much even for so depressed an industry as agriculture.

There is no necessity to talk about State aids, for in reality Parliament can do very little, nor about such solutions of pressing problems as the nationalisation of land, and the

nationalisation of industry, which socialists preach. LEON SAY has said "that abroad these banks have proved the most "effective weapon against the development of socialism."

If it be true, as ARTAXERXES said, 2,000 years ago, "that "agriculture is the true source of national wealth," and as the late Professor THOROLD ROGERS was of opinion that "the "prosperity of a country's agriculture measures the extent "to which other industries than agriculture can subsist," we should have to confess that this country was indeed in a hopeless condition, but with the unmistakeable evidences of vitality I have just mentioned, and with the further development of the same principles in their application to co-operative credit, I, at least, have great hope for the future condition and future prosperity of all classes of the agricultural community.

Mr. G. LANGRIDGE (Fellow) said he had great pleasure in proposing a very hearty vote of thanks to Mr. LEMAN for his Paper, which, while voluminous and exhaustive, was modest in language and moderate in tone. He was sure that Mr. LEMAN would take in good part any criticisms which might, in the course of the discussion, be offered on his Paper, and would look upon any argument conflicting with his conclusions only as an effort to extract from him still further information.

On reading the title of the Paper he had hoped to hear from Mr. LEMAN some suggestions for supplying to agriculture more of that assistance from capital of which it was at present so sadly in need. But Mr. LEMAN, in his Paper, seemed practically to rely for relief on the growth of allotments, whose cultivators should supersede, to a great extent, the present tenant-farmer. It was, perhaps, comforting to be told that, by any means, some of the millions which were paid to foreign countries for agricultural produce might be

kept in England ; but surely the same causes which now pressed so hardly on the landlords and tenant-farmers would equally affect the cultivators of small holdings. He could not, himself, see how it was possible to stop importations from abroad, or that the mere fact of establishing a system of small allotments in England, and lending money at 6 per cent. to their holders, would put agriculture in a better position to meet its difficulties.

Formerly, when prices promised at least a fair return for outlay, plenty of capital was always ready for the development of the land, and there was then sufficient occupation for labour, but the causes which had tended to alter that state of things still existed, and would continue to exist. His own experience of allotments made him inclined to feel rather doubtful whether the best way to help their holders was to give them credit for which they were to pay 6 per cent. He admitted that, near the towns, where there was a ready sale for their produce in the home markets, some of them (perhaps a considerable proportion) were doing well ; but even under such conditions it was difficult to see how, if capital were advanced, there could be any very substantial security for the repayment of the money. In his own district, where a great deal of produce was sold locally, the small farmers, although perfectly honest and ready to pay their way, could not, if times went against them, repay such advances of capital without effecting their own ruin. He had not had time to thoroughly study the Paper, but he really did not see how security was to be efficiently obtained for the money invested, even assuming that the bank was practically to be the bank of the parish, and that all would be liable for the debt of one, unless it was expected that landowners themselves should advance the money. He did not quite see what would be the guarantee or security. A man might borrow, say, £50, to buy stock or implements,

but if he had no other capital beyond what he borrowed, and if anything happened to the cow or the horse, to purchase which he had borrowed it, the money must be made good from some source, or it would be lost.

All the foreign countries which were quoted, namely, Germany, Italy, and France, had, to a greater or less extent, protection for agriculture, such as he did not think there was any present prospect of being established in England. But whether the Members present agreed with the author's views or not, he was sure they would agree with him that a cordial vote of thanks was due to him for his most able Paper.

Mr. J. W. KEMSLEY (Fellow), in seconding the vote of thanks, said he thought it was Mr. FROUDE who, in his book on the West India Islands, remarked of the planters there that they had sustained the greatest of all possible losses, in that they had lost hope. He was glad to find that Mr. LEMAN had not suffered that loss. He wished he were himself as enthusiastic and as sanguine about the improvement of agriculture in England, by creating small holdings, as Mr. LEMAN. If sympathy with the present condition of agriculture, and the desire to better those who were now so low, could effect anything, that sympathy and that desire would never be wanting among Members of The Surveyors' Institution; but, when he looked beyond the forcible rhetoric of the Paper and sought some practical suggestion for alleviating the present distress and establishing agriculture on a more solid basis, he was bound to say he failed to find it.

The author, although he owned that he had not a nostrum that was going to cure everything, yet seemed to think that these agricultural banks were to save English agriculture. Those banks, he was rather sorry to find, were

not to be commercial institutions, but, rather, banks in the abstract. The Paper foreshadowed a sort of Utopia or Arcadia in the future, when the "bold peasantry" were to be started in business on small holdings; when butter and eggs, instead of coming, as now, from foreign countries, were to be produced in our own fields; when the trains were to be laden with our own produce, instead of with supplies from abroad; and when the unemployed in the towns were to be brought back to the land and to prosperity, and even the dock labourers were to be set up as small agriculturists.

The Paper implied that one of the principal needs of agriculturists is the want of capital. He wished he could believe it. He thought that want was the effect, and not the cause, of the present depression. Where prices were such as to yield a fair margin of profit, capital would always be found; but, with present prices, it was idle to think that any man was going to pay 6 per cent. interest in addition to his expenses of production. If the unfortunate persons who put their money into these banks were to wait until there was a profit beyond the expenses of cultivation, they would, in his opinion, have to wait more than ten years before they could get their money back. It was brought forward as a strong argument in the Paper, that in France and in Belgium, and other Continental countries—he thought the argument had even been carried as far as Japan—this sort of thing was being successfully carried on. But whatever had been done in France in better times did not prove that the same system would be practicable in England now. He reminded himself, and he would venture to remind the Meeting, that the French or the Belgian peasant had drunk in thrift with his mother's milk—he had inherited thrift—thrift had been burned into the very sinews of his body.

But the peasantry of England had not been taught thrift as he wished he could say they had. As chairman of a School Board, he had insisted strongly on the importance of the teaching of thrift, and he was glad to say that his School Board had over £300 in their penny bank, which had been saved by the children of their Board Schools. Before a man could be helped by borrowed money he must be taught thrift; but he was bound, however reluctantly, to recognise the fact that we, as a nation, were largely responsible in our institutions for the lack of thrift among our peasantry, and it was idle to talk about lending them money before we had taught them how to use it.

It was said that the principal privilege of a member of the proposed banks was, that he had a right to a loan at a low rate of interest; but the method of providing and distributing the capital rather reminded him of the three old ladies who lived by going out to tea with each other, or of the two American boys who had no money, but had each a pocket knife, and they employed themselves in trading together with their knives until in the end each had his own knife and fourpence over.

Where was the money to come from? With the exception of £100 or £200, which was to be lent them by benevolent local gentlemen, the money, as far as he could gather, was to come out of these mens' pockets, which were at present empty. It would appear that the scheme was one for "capitalising honesty." He very much wished that could be done under some "moral guarantee," and he hoped Mr. LEMAN would explain his method a little further. There were already many honest men who would be glad to "capitalise honesty" but who could not pay their debts, and he was afraid that these banks would make many more. If his advice were asked by a labourer who had been fortunate enough to save £20, and who proposed to invest it in an

agricultural credit bank which promised him 3 per cent. or 4 per cent. for his money on the security of capitalised honesty, he would recommend him rather to put it in the Post Office Savings Bank, at $2\frac{1}{2}$ per cent. Agriculture was not now a good enough business to go into on borrowed capital at 6 per cent., and it was only in a few cases that the man succeeded who started with borrowed capital. He did not in the least question the honesty of small holders as a class, but if a number of undoubtedly honest men carried on their business by raising money on each others bills at 6 per cent., they must, he thought, sooner or later come to grief. The author of the Paper said that the scheme provided, in itself, a sufficient guarantee of security—he could only hope that it did.

There was an implication in the Paper that there was, at present, no opportunity for agricultural labourers to improve their position; but he thought the case was scarcely so hard as that. He could, from personal experience, mention, if time allowed, the cases of many men who had raised themselves to a very respectable position in society, without credit banks, by their own thrift, perseverance, and industry; but, if such men as those had been induced to ally themselves with less thrifty and less business-like men, they would not have attained their present position.

It was argued that these banks would bring back labourers to the land, and the author even had a vision of dock labourers returning to their native parishes and borrowing £50 from the agricultural credit bank and starting business thereon. He pitied their present position, and thoroughly sympathised with them; but, until it was possible to make them more fit for the position, it was utterly useless to talk about lending them money for agricultural enterprise. It was quite useless to expect

to raise a man by lending him £50, until he first learned how to use it. The Paper recommended self-help and thrift, and that recommendation he cordially endorsed; but it was not by borrowing that thrift could be encouraged.

In conclusion, he must express some disappointment that the proposed banks were not to be commercial undertakings, for he should like to give those who believed in them an opportunity of investing their money in them. If he really believed they would be as effective as the author represented, he would, himself, somehow find money in order to help so praiseworthy an enterprise; and it was not because he wished to throw cold water on the scheme that he had spoken as he had done, but because he felt that it was necessary to utter a warning not to place too much dependence on ideas which might prove to be misleading and visionary. He had felt compelled to speak plainly, but he hoped not offensively, because his own experience did not lead him to believe that the suggested remedy would be effective. At the same time he heartily joined in thanking Mr. LEMAN for the time, trouble, and care which he had bestowed upon the Paper, and most cordially seconded the vote of thanks.

Mr. T. FARROW (Visitor) said, as honorary secretary of the Agricultural Banks Association, he might claim to take considerable interest in the subject with which the Paper so ably dealt, though, having been of late entirely occupied in investigating the system of usury practised in this country, he was, perhaps, a little out of touch with the subject of agricultural banks.

The proposer and seconder, both intimately acquainted, as they no doubt were, with the needs of agriculturists and the wants of small holders, had scarcely, he thought, paid enough attention to the details given of the actual working

of these banks abroad, which, after all, was the only criterion by which to gauge their probable success in this country. He would venture to refer to the reports which had recently appeared from Signor WOLLEMBORG to the Labour Commission, as to the very useful work that these banks had done in Germany, Italy, and Austria, and which, he thought, had not been studied so much as they deserved by the speakers who condemned as impracticable the suggestions set forth in the Paper.

The last speaker had stated his willingness to invest money in helping these banks if he thought they would really relieve the existing distress, but the small men, whom it was proposed to help, did not want gifts. They merely wanted assistance which would be compatible with a spirit of thrift and self-help. That could, in his opinion, best be accomplished by their accepting, as a deposit, from people living in their own village, money for which they would be prepared to pay a proper rate of interest. The proposed banks were to be thoroughly commercial affairs. If the landowner, for instance, were to come forward and offer to contribute his £100, or £200, as was done abroad, the same rate of interest would be paid as to ordinary depositors.

Then, Mr. KEMSLEY had emphasised the fact that he was anxious, in connection with the School Board and in regard to local affairs, to encourage the spirit of thrift. Here, as the author of the Paper had been at pains to point out, was a great experiment in thrift. The members of these banks would be forced, by a sense of mutual responsibility and liability, to stand by one another, knowing full well that if one failed the others would be responsible.

When in the west of Ireland recently, he consulted with some of the residents in Achill, and found them eager to form themselves into a society of this nature. He asked one

what incentive he would find to come to the meetings from week to week, or month to month, and the reply was, simply because he knew that his own money would be at stake, and he would take care that the loans were not misapplied, but granted to thoroughly deserving persons.

It had also been said that it was idle to talk of lending men money until they were taught how to make use of it, but he thought that the small holders could be fairly trusted in this matter. The imports into this country, which competed so disastrously with our own produce, would be found to come, to a very large extent, from those small holders who were assisted by, and relied on, such agricultural credit societies composed of people living in their own village.

The result of the present system was that money, saved in a village for instance, was not used to further the interests of the locality and to increase its prosperity, but was put into the Post Office Savings Bank to be invested in consols or some such securities. Under the proposed system the money would remain to benefit the neighbourhood where it had been saved, and those persons who had saved it, would, as members of the council or the committee, have the right and the interest to see that it was well applied. In a village or small community people knew fairly well the position of each other's affairs, and could take good care that their own money was not entrusted to those who were likely to misuse it or to become defaulters.

He could understand speakers looking at the present condition of things from the landlord's or the tenant-farmer's point of view—from the top instead of from the bottom—but he knew, as the result of his recent investigations, that there was a great need in this country for some new form of credit. There existed, at present, scores of loan offices which demanded from agriculturists a mini-

mum of 60 per cent. interest on their loans, and yet it was asked how these men were to pay 6 per cent! He knew of one loan office, which did a large business among agriculturists in the west of England and in the Midlands, and which had taken 268 bills of sale during the last 7 months, 152 of them in the names of small farmers, and all the loans being for £30—the minimum sum allowed by the Bills of Sale Act. But as the proposed credit banks would advance up to £50, those very men who were now oppressed by the usurer, would be able, on reasonable terms, to borrow from their own bank without fear of extortion.

Mr. J. R. EVE (Fellow) said that, whatever might be his own personal opinion of the methods advocated in Mr. LEMAN's Paper, he had no hesitation in saying that anyone who attempted to remove in the slightest degree the burden under which agriculture at present laboured was entitled to their heartiest thanks.

He joined in thanking Mr. LEMAN for the thoroughness and exhaustiveness with which he had treated his subject, even while he had conscientiously to differ from some of his arguments. The proposer of the vote of thanks had expressed his disappointment that the Paper did not deal more with the larger class of farmers, but he (the speaker), knowing agriculture as he did, was thankful to find the scheme was a small one, for he could not but fear that those who put money into a scheme of the kind proposed must inevitably lose it.

It was very well to compare England with foreign countries which might be better or worse off than we were; but the fact remained we were not a foreign country, and that our agricultural population was not made up of small farmers, and, therefore, before these small agricultural banks

could become of use here, it would be necessary to create the peasant proprietor. Peasant farms were not common in this country; it would cost more to convert many farms of, say, 400 or 500 acres into a number of small peasant farms than the land was at present worth. It would be, to his mind, equally unprofitable for anyone to provide money at 3 or 4 per cent., to lend out at 6 per cent. to small farmers or allottees. He knew of cases where cow clubs had been successfully established in the grass counties of England, and it was possible to "ear-mark" a cow, or to put a brand on a plough; but, how, for instance, in the case of manure, was it possible to get a security which would hold good for the 10 years before repayment was due? He thought that, by the end of that time, the security would be rather intangible. The author of the Paper relied, he thought, rather too much on the honesty of men. He (Mr. EVE) did not doubt the honest intentions of the farmers or the labourers; but directly it became impossible to pay one's way, where was the security in honesty? and if the seeds or manure, represented by the borrowed money, were once put into the land, all who had been farmers knew what chance there was of their recovery.

Then, each member of these banks would be responsible for the shortcomings or accidents of every other member, a very unsatisfactory position if he happened to be the only solvent man amongst them, and, as to the rest, it amounted as Mr. KEMSLEY had said, to a mere system of backing each other's bills. He entirely endorsed the remark of that speaker, that it was not capital which agriculture wanted. There was plenty of capital about. What was the use of throwing more money into the vortex where so much had gone already. Until prices were better, a fresh race of farmers could not be created with any prospect of success.

As to the question of foreign produce. There was

nothing he viewed with more apprehension than a very large increase of our own English produce of such articles as eggs, butter, and cheese. With eggs at one shilling a score in many markets, and with poultry at its present ruinous price, how was an increase in production, in face of the competition from abroad, to make those articles profitable? Foreign countries must keep sending, because they had the produce; and would go on sending until it was not worth raising here. It was the same with hay, which, until a few years ago, very few tenants were allowed to sell off the farm; but hay was now worth only 50s. a load in the country, and fruit was, in the face of foreign competition, almost unsaleable.

He hoped he should not be understood as objecting to small holdings. He was a great advocate of them, and of allotments, and had, he hoped, done something towards securing them to the people. He thought if they were properly used they were a very great advantage; but the difficulty was in providing proper building accommodation. If he could find an agricultural bank which had for its object the conversion of large farms into small agricultural holdings, by the erection of buildings, he was not sure that he should not like to invest in it, for he thought there would be a much better chance of its paying than the banks proposed by the author of the Paper. Capital was now shy of agriculture, simply because no reasonable profit was likely. Co-operation seemed to be a great thing nowadays, but co-operation in honesty—the system of binding men in twenties to make one honest man—was so far beyond his experience that he could not form any opinion on its practicability. The operations in farming were so varied that it was difficult to make two men agree on even such simple things as sowing a piece of land. For instance, when talking to some men in Bedfordshire, to whom land

was let on the co-operative system, he asked "How do you agree?" And the man he asked said, "Not very well." They could not agree, for instance, how often to harrow. And so throughout; there were so many operations that it was difficult to agree what was to be done, and co-operation in production, in that respect, and for that reason, must, he thought, be a failure.

The important part of the duty of members, it was said, was to know to whom to lend; but he was very much disposed to think that the very difficult part would be to find out of whom to borrow. He did not think people accustomed to agricultural life would be found ready to lend money for agricultural purposes. Then, what was the nature of the security which the borrower had to give? There was nothing, not a penny, to fall back upon. To lend without security was contrary, in his experience, to all commercial principles.

The Paper, whilst very able, was one of the most visionary description.

Mr. BERNARD CLARKE, C.E. (Visitor), said the point of view from which Mr. LEMAN had approached the subject might be Utopian, but he was a young man, and, in his opinion, it was the young mens' views and the young mens' work which only could solve the present difficulty. The condition of agriculture to-day was admittedly as bad as it could well be, and it was of no use to sit down and recount failures; what was wanted was the suggestion of remedies, and this it was for the confidence and the faith of the young men to do.

In the first place, England did, he believed, want small holdings; and in the second place, the present condition of agriculture proved that some different system of culture was necessary.

It could be proved to anyone who was willing to have it proved to him, that the small holder or the peasant proprietor could produce more from the land than the larger farmer, while the primary object for which the small holder grew his stuff was for his own consumption, and thus much of his profit was free from deduction for cost of carriage, and experience proved that he could produce, say, two bushels where the larger farmer only got one. He would not grow wheat. And if wheat would not pay to grow, was there any alternative crop that could be grown profitably in rotation? He believed there was, and that, in this direction, the young men could point out the way to success when old men had given it up.

Co-operation did not, as he took it, mean that there were to be, for instance, four persons in one concern, each one taking a branch in the same concern. It meant four shops in a row combining to send their goods to market in one cart, using only one set of implements, and buying their raw materials at wholesale prices.

Mr. CHARLES F. RIDEAL (Visitor) said he was afraid that previous speakers, who had argued in opposition to the author's proposals, had not brought forward any very weighty arguments. There were, in this country, some millions of acres of land on which not only was wheat not grown, but from which nothing at all was produced. Surely, if Mr. LEMAN'S scheme were even wild and imaginary, there was this to his credit,—that he had tried to shew some method of cultivating some of that land now lying idle. It was said, from time to time, that there was not sufficient land in the country to support the people; but that was not really a true statement. There was plenty of land if it were properly dealt with. If it was unprofitable to grow wheat, why were not

light crops, asparagus (at twenty-five shillings a bundle), for instance, grown in many parts? Farmers did not, he thought, work half hard enough to remedy their own difficulties. They ought to take in hand the question of distribution, and deal with their own produce. He had seen, last year, in Kent, tons of fruit rotting for want of facilities of carriage or energy to devise and insist on them.

A good deal had been said about providing capital. The idea seemed to exist in the minds of some of the speakers that the proposed banks were going to provide money and distribute it indiscriminately to anyone who applied for a loan, but he would rather compare the operation of such societies to that of the existing building societies, which had worked so successfully, and which now commanded some 56 millions of capital. In their case, a certain number of men co-operated to buy houses. Each would draw an allotment, and become the proprietor of his house in turn. Why could not a similar plan be applied to agricultural holdings?

Mr. LEMAN, in reply, said, there was very little left for him to comment upon, and to reply to all the criticisms on his Paper would occupy more time than he thought he could at that hour ask from the Meeting.

He thanked the proposer and seconder, and the speakers who had followed, for the kind manner in which they had received his Paper, but he was a little surprised at some of their criticisms. He agreed with Mr. BERNARD CLARKE and with Mr. RIDEAL in their expression of wonder that objections had been raised by gentlemen taking such a deep interest in, and having such wide experience of, agriculture. It was impossible to help noticing, day by day, the striking articles in all the daily papers, severely censuring the

farmers for their present system of farming, and their persistence in their stubborn way of going on with the same kind of cultivation.

He could not, himself, see why they should do it, in the face of the fact that there was such a vast amount of produce which could be produced in this country, but which was now imported. He knew, from personal experience, of farmers in Lincolnshire who would not think of keeping fowls, pigs, and cows to make a profit, but still adhered to wheat cultivation at a loss of 2s. or 3s. a quarter.

His own experience was that, in many parts of England, small agriculturists were very anxious to get such banks as he advocated established, and if any of the Members of the Institution, interested as they were in the prosperity and future of agriculture, would care to apply to him he would be happy to furnish details of the working of those which had already been successfully started.

In conclusion, he strongly urged those who had expressed doubts as to the financial soundness and stability of such banks to read the various Blue Books of the Labour Commission, which contain abundant evidence of their successful working abroad; and as points of difficulty could be made clear in conversation he would be glad either to call upon them or to see them at the offices of the Association.

The vote of thanks having been put and carried unanimously, the Meeting then adjourned.

PAPER ON FORESTRY.

By GEO. CADELL (ASSOCIATE).

*Read at the Ordinary General Meeting of THE SURVEYORS' INSTITUTION,
April 1st, 1895.*

DANIEL WATNEY (VICE-PRESIDENT) IN THE CHAIR.

THE President of the Biological Section of the British Association Meeting, held at Oxford, in 1894, used the opportunity thus afforded him to discuss Forestry as "a division of rural economy which ought to be the basis of a large national industry." After deploring the small amount of attention which has been paid to this subject, especially by scientific men in this country, he enumerates the efforts which are now being made, more particularly at Edinburgh and Newcastle-upon-Tyne, to bring it to the front. And in this connection he goes on to say, "I must not omit to mention, too, the beginning just made by The Surveyors' Institution of a Forestry Museum in London, which should have an important educative influence."

Let me recall the words of THE PRESIDENT of this Institution, in the Address with which he opened the Session of 1893-94.

"The Institution" (he said) "regards itself as an examining and not as a teaching body. It is, however,

“one thing to teach and another to give facilities for teaching. We shall not, therefore, be going out of our way in supplying an educational want in connection with our Examinations in Forestry.”

After pointing out that existing collections of woods at Kew and elsewhere are rather Imperial than British, and, therefore, of comparatively little value to those concerned in the management of English woodlands, he placed before the Institution, as an ideal to be aimed at---

“A museum containing specimens of timbers used in the constructive arts in this country, and of trees commonly grown for profit here, or suitable for such purposes, and including specimens of their foliage, seedlings, flowers, fruit seeds, insects, and fungal enemies or others of a cognate character. This,” he said, “would be useful and attractive, not only to those preparing for our Examinations, but also to many of our older Members engaged in estate management.”

FINANCIAL RESULTS OF PLANTING.

In the general classification placed at the beginning of the skeleton catalogue of the forestry collection, which was issued to Members, this ideal has been kept in prominence, and the wants of the collection in the various branches of forestry were indicated in detail for the guidance of intending contributors. The crucial test of the whole, viz., the financial result of planting, is placed at the end in the hope that examples in illustration of what has been individual experience might be forthcoming. The division of forest value from agricultural value has always been a matter of considerable difficulty and contention. An assessment committee and a proprietor (or his agent) view the rateable value of woodlands through very differently-focussed spectacles, the

discussion generally ending in a compromise between the value of the wood, plus the sporting rights, and the value of the agricultural land immediately contiguous, with the cost of grubbing up and conversion deducted. It is unnecessary to insist on the looseness with which this compromise is, or may be, handled, but it is evident that the actual incidence of taxation does not stimulate in the proprietor any burning zeal for the formation or extension of his plantations.

In the description given below of some larch butts in the Museum, some idea may be formed of the ultimate value of the capital or standing crop.

LARCH BUTTS FROM NOVAR ESTATE, ROSSSHIRE, N.B.

No.	Age of Tree.	Cubi- cal con- tents.	Value per c. foot.	Value of land	Altitude above sea.	Exposure.	Nature of soil.	Nature of sub-soil.	Remarks.
1	80-86	121	1/1	4/-5/-	400	South-East	Gravelly herbage	Gravelly clay	
2	74	78	1/1	4/-5/-	320	North-East	Poor gravelly	Conglomerate rock	
3	64	60	1/1	1/-	542	South	Poor moorland	Red sandstone	
4	55	68	1/1	4/-5/-	400		Sandy loam	Blue clay and sand	
5	40	28	1/1	4/-5/-	630	North	Red moorland	Stiff clayey gravel	After a heavy Scots fir crop
6	30	10	1/-	1/-	260	East	Gravelly ridge	Gravel	
7	24	15	1/-	4/-5/-	10	South-East	Sandy loam	Blue clay	

From data obligingly supplied by the factor of the estate.

NOTE.—The value of congenial soil is strikingly brought out in the increased ratio of growth of Nos. 4 and 7.

There is little difficulty in shewing how largely woods judiciously planted add to the permanent value of landed property in the interests of a succeeding generation. We thus find the owner of these woods stating, in his presidential address (January 1895) delivered to the Royal Scottish Arboricultural Society, that his forester had submitted some figures to the Society which proved that a sum of ten shillings an acre of profit had been secured by the growing of larch, the ground upon which it had been grown

not being worth more than twenty shillings an acre in fee simple value.

THE INDUCEMENTS TO PLANT.

Of the present inducements to plant it is less easy to speak with confidence. No undertakings of any magnitude are entered upon with the prospect of immediate returns on the outlay. But while the tendency of the age, in many directions, is to allow succeeding generations to look after themselves, there is something too niggardly and selfish in the strict following out of such a policy to commend it to the average Englishman. Had our predecessors so acted, we would have had no railways or public works in the country, no educated or skilled exponents of different professions or trades, no Societies or Institutions such as the one which we here are glad to support. Perhaps one of the greatest drawbacks to inducements to plant is the absence of any accounts drawn up *ab initio*, to shew the returns obtainable from outlay in planting. In the Appendices to the Report of the Select Committee on Forestry, there are, I am aware, to be found carefully written-out examples of forest book-keeping. And others are incorporated at greater or less length in such books as Brown's "Forester," and others dealing with practical forestry.

FOREST BOOK-KEEPING.

But I venture to think that we are still without a systematic form of book-keeping which might, with such modifications as appear necessary in individual cases, be generally adopted. As a means to this end, I have asked an experienced forester to draw out the method adopted by him, which I here submit to the judgment of my hearers.

LEDGER ACCOUNT.

Dr.		Cr.	
	£ s. d.		£ s. d.
WOOD.			
Jan. 1st., 1894.			
To Nursery for 50,000 Scots Fir Plants @ 20s.	50 0 0		
Cash paid for Labour and Planting Estate for Grazing, Value of Land say 33 acres @ 2s.	50 0 0		
Interest on Outlay @ 5 per cent. ...	3 6 0		
	5 0 0		
	<u>£108 6 0</u>		
		Dec. 31st., 1894.	
		By Balance ...	£108 6 0
Jan. 1st., 1895.			
To Balance brought forward ...	108 6 0		
Estate for Grazing, Value of Land say 33 acres at 2s.	3 6 0		
Interest on Outlay @ 5 per cent. ...	5 8 3		
	<u>£117 0 3</u>		
		Dec. 31st., 1895.	
		By Balance ...	£117 0 3
Jan. 1st., 1905.			
To Balance brought forward ...	117 0 3		
Jan. 31st.			
Cash for Labour ...	3 0 0		
Estate for Grazing, Value of Land as before ...	3 6 0		
Dec. 31st.			
Interest on Outlay @ 5 per cent. ...	5 17 0		
	<u>£129 3 3</u>		
		Jan. 31st., 1905.	
		By Cash for thinnings ...	10 0 0
		Dec. 31st.	
		By Balance ...	119 3 3
			<u>£129 3 3</u>

NOTE.—Nine years have been omitted to show an entry on credit side for thinnings.

It would not, perhaps, be safe to calculate on getting anything at all for "thinnings" within the first ten years; but there is no reason why spruce, &c., should not yield wood marketable, as pit props, in fifteen years—and this should not be such a very formidable period to anticipate. In India, at any rate, we had a much longer time of probation and up-hill work before we proved our case, and proved it to the hilt.

As an example of the returns given by matured woods, it will be within the recollection of many of my hearers that, in the case of *Dashwood v. Magniac*,* the wood-books kept on the estate were actually produced, and shewed that during the time Sir J. DASHWOOD KING was in possession of the estate, the yield had been, on an average, £1,700 per annum. The woods covered 1,000 acres, and had been cut in regular rotation, a ready sale being found for the produce amongst the chair-makers of the district for the purposes of their trade.

In Scotland, where on every considerable estate the forester is quite as necessary an official as the gardener, or major-domo, the practice of forestry is less of an experiment than a recognised and well-established industry. The woods have been taken over by the forester from his predecessor, who has managed them in some systematic manner, if not according to the strict principles of Continental training and science. But here, too, the timber has been taken for the erection of buildings, and the repairs of gates and fences, without any very strict account of values credited or debited. The woods were not reared and maintained with the primary idea of yielding a surplus and separate revenue. They were rather necessary and inseparable adjuncts of an estate where the cost of carriage by road or by rail demanded that the factor or agent should depend upon his internal resources. And in

* "Prof. Notes," vol. v., p. 157.

a country naturally bleak and inhospitable, they were necessary, further, for the well-being of the contiguous pasture. On this matter I shall have something to say further on, for it is impossible not to consider the shelter afforded by woods as an indirect means of revenue to the estate. The rental value of some estates, consisting largely of sheep-farms, is entirely dependent upon the maintenance of woods—in other words, without woods there would be no rental value at all, the sheep would maintain a precarious existence by bites at a time, and the losses from accident or want of care over a large range of wilderness would destroy any profit that might otherwise be reaped.

If, however, in Great Britain, we are thus debarred from giving the direct pecuniary results of planting in those serrated lines of figures ending in a small sum of subtraction of expenditure from receipts, so dear to the actuary or chartered accountant, we have only to cross the Channel to see what has been the result, not of a long course of scientific forestry (although that, too, is abundantly apparent), but of intelligently conducted operations extending over a short space of three decades.

FORESTRY IN FOREIGN COUNTRIES.

The soil of a great portion of the Landes district of France consists of dry sand, interspersed with marshes, which the shepherd-sportsman traverses on stilts—a country formerly as useless as it was inhospitable. They are known locally as the Dunes—sand hills levelled and again upheaved by the winds, which form standing, or rather shifting, menaces to the inland cultivation. On such unpromising soil the private owners of the adjacent lands, stimulated by the example of, and encouraged by the indirect aid afforded to them by, Government, have in the last thirty

years reclaimed by planting no less than 875,000 acres of waste land, and have thus increased the value of their properties by, in round numbers, five millions sterling (£5,000,000). The pine forests, in fact, form part of the regular rotation of crops. The maritime pine furnishes detritus to the soil, which permits the cultivation afterwards of rye and buckwheat, no manure of any sort being required for a certain number of years. When the soil is exhausted by this series of cultivation, new sowings of pine restore its fertility, and give place afresh, say after 25 years, to the buckwheat and rye.

In Switzerland the Government, alarmed by a Report made in the year 1858-59, which declared that "the actual production of the forests was not sufficient for the consumption of the inhabitants," and by a more concise one later on in 1863, which stated that "the importation exceeded the exportation by 14,820,000 cubic feet," set on foot vigorous measures of replanting, by which, seconded by the efforts of private owners, they brought about a very different state of matters in a still shorter interval. Within 25 years from the date of the commencement of operations the forests satisfied all the requirements of the inhabitants, and gave a free net revenue of over five shillings per acre, per annum.

Dr. SOMERVILLE, in a lecture delivered at the Imperial Institute on the 13th of last December, stated that seven large forests in Germany yielded from 6*s.* 4*d.* to 19*s.* 6*d.* per acre of net profit, the mean of the whole being thus 14*s.* per acre. And in some beech-woods which I personally visited in Hesse Nassau the returns were 8*s.* per acre per annum.

FORESTRY IN BRITISH INDIA.

"*Cœlum non animum mutant, qui trans mare currunt,*" says the old Roman, and the Englishman in India has been

the exponent of a policy in forestry, not less sagacious and far-seeing than that shewn in either France or Switzerland. The history of forest administration in India is an oft-told story, and I may not place here figures which read more like the history of gold mining than the results of a carefully-conducted industry, helped along by no spasmodic "finds," but duplicating and reduplicating its revenue by measures at once directly remunerative and lastingly valuable. The gold reef gets worked out as the "pockets" get fewer and farther between. The forests, the source of the revenue, remain.

It has ever been the outstanding principle of the Indian Forest Department to conserve and add to their forests, rather than to cut them for the purpose of shewing a profit on the working. Instituted in 1848, and officered at first by men who had no scientific training or experience, the exigencies of the position in which they found themselves forced upon them, as a paramount duty, the jealous preservation of the property with which they were entrusted, although the temptation to justify and enhance their value as Revenue officials by showing a forest revenue was exceedingly strong. For, in the carrying out of a strict course of duty, they had to run against the prejudices of the natives of the country, as well as of the religious institutions. Temples and ryots alike claimed rights of usage over the forest. Some of these were defensible, others were not. From time immemorial, however, the agricultural labourer had enjoyed the right of cutting in the forests which adjoined his holding the timber necessary for his buildings or his tools. It was impossible wholly to disregard such a right, which, like "turbary" or "commonage" in our own country, was most tenaciously clung to, under the native name of "kumaki," literally, assistance. Those who have had anything to do with forest administration know how, within the boundaries

of a forest, one plan of working only can be carried out, one hand only must direct all. I do not know that I can say anything higher in favour of the policy I have above indicated, or of the manner in which it was from the commencement carried out, than that the ryot of to-day sees in the proper conservancy and reproduction of forests (which is what we are to understand by forest administration) a factor as important and as potent for his immunity from famine as the storage or distribution of water or artificial irrigation. Science has aided in carrying out the principles of this policy, but it has never been reversed or, indeed, departed from, and the forest revenue of India, which takes no insignificant place in the Government receipts, is the spontaneous and unstrained outcome. Every ten years or so, famine threatens the densely populated districts of India, and famine means death to the cattle—the mainstay of the villagers. Then the forest reserves are thrown open for grazing, all expectation of revenue being thrown to the winds for the season. The forests are thus held in trust for the people, and the forest officials, so far from being despoilers of their property, have shewn themselves their truest friends.

It seems paltry, by comparison with such results as these, to speak of the pecuniary profits. Yet I may venture to give you two very easily remembered items. There are before me, as I write, two official reports of the working of the Forest Department in the Madras Presidency, *quorum pars fui*. In the former, that for 1876-77, the net surplus is declared to be rupees 24,390. In the latter, that for 1889-90, the net result, by a curious coincidence, is declared to be rupees 2,43,989, say £14,000, of free profit. In thirteen years, that is, the revenue had multiplied itself by ten; while the expenditure shews that the capital, *i.e.*, the State forests and reserves themselves, had been fully maintained and largely added to,

OF THE RELATIONSHIP BETWEEN FORESTRY
AND AGRICULTURE.

But I shall be told that, in these and in many other instances that might be cited to a similar effect, the State were themselves either the sole or the principal owners, and as such, had a free hand in directing the policy. I do not know that this is any valid or convincing reason for the Government and the people alike twirling their thumbs, compiling and reading doleful statistics, and vainly regretting the decadence of their principal industry. I have elsewhere endeavoured to shew that what forestry is to irrigation in India, forestry might be to agriculture here. And while it cannot wholly alter the fact that much land is being relegated to common and to waste, it can, at any rate, assist in retarding the downward and backward movement.

Of this downward and backward movement we have all, I suppose, heard *ad nauseam*. The leading daily papers give every week a report on agriculture from their own special correspondents; and the evening papers make extracts from them, and repeat them with comments of their own. "We have long since passed the price of wheat which will enable the farmer to grow it even if he has his land rent free. Wheat is 10*s.* a quarter less in price this week than it was in the corresponding week last year, and so forth." While, however, we have the fact thus prominently placed before us, we have not, I venture to think, arrived at the cause of the fact, and are thus as far off as ever from the means of its solution.

If my hearers will be so good as to go back with me to "Willich's Tables," they will find a very significant little triad of figures relating to the years 1854, 1855, and 1856. The prices of wheat in these years were 72*s.* 5*d.*, 74*s.* 8*d.*, and 69*s.* 2*d.* per imperial quarter respectively. Now let us go

back one year, viz., to 1853, and we shall find the price stated to have been 53s. 3*d.* Again, let us go forward one year, and we shall see that the price in 1857 was 56s. 4*d.*, dwindling down in 1858 to 44s. 2*d.*—plenty of scope here for both the “bulls” and the “bears” we read of in the money articles of the papers. To my mind this little triad of years and of prices has much to answer for. Stimulated by the temporary and unduly inflated prices, much land was put down to wheat which was not, in the ordinary nature of things, adapted for it. Coppice was grubbed up to make way for the more paying and more quickly realised crop, and even commons and wastes were utilised. The land was “reclaimed,” as it was considered, from waste.

Speaking generally, all cultivable land has been acquired or reclaimed from woodland. And such a course of action, within proper limits, is not only justifiable but wise. But there is a limit at which it ceases to be either justifiable or wise.

“Countries rich in agriculture and in industries” (says a French writer, M. CLARÉ) “are at the same time rich in “forests.” . . . “Poor countries which have neither “agriculture nor industries have also lost their forests. “The Forest Chart can, up to a certain point, indicate to “us the degree of prosperity of each country. A wooded “country is a prosperous country. A country deprived of “its woods is a poor country. There are few exceptions to “this rule.”

When, therefore, as we have seen, the price of wheat, after a short period of undue inflation, reverted to its normal level, these reclaimed lands first felt the pinch. And the necessary result was what Major CRAIGIE brings out in his Report on the Agricultural Returns for 1891.

“Turning to the details of the cultivated area, it is “again necessary to note the remarkable changes which

“have been taking place in the ratio of arable to pasture land in Great Britain. The two great divisions of arable and pasture now claim, for the first time, an almost equal share of the surface. Twenty years ago the arable land was to the grass as 3 is to 2.”

Twenty years hence, perhaps, the woodlands which now cover only 3·8 per cent. of the total area of Great Britain may stand in the returns at a more appreciable quantity. The present acreage of woodlands—roughly about 470 square miles—bears a very small proportion to the total area of waste land in the United Kingdom, which is put down at 26,757,000 acres, nearly one-third of the surface. Much, however, of this is barren mountain land and waste, which could not be usefully or profitably occupied by plantations or anything else.

A more significant and disastrous fact is to be found in the 12·67 per cent. of the area in “derelict Essex,” reported upon by Mr. HUNTER PRINGLE, marked on the map which accompanies his report by ominously blackened “splotches,” and representing “fields and groups of fields which, since 1880, have passed out of arable cultivation, and are now lying in coarse weedy pasture.” It would cost, says the Assistant Commissioner, at least £8 per acre—a detailed statement which he gives, says £10 4s. 6d. per acre—to restore much of this land to a good state of cultivation, an outlay which, “at the present price of agricultural produce, I was informed none but a madman would venture upon.”

I do not wish to be placed in the same category by suggesting that the stiff worn-out clay of Essex should be planted. Some trees will grow in running, but none will brook stagnant water; and the cost of the efficient drainage of such land, which is, probably, “water-logged,” would, in itself, destroy any chance of profit. But there must be

plenty of land, both in Essex and elsewhere, which has not such tenacious soil and subsoil, and which, looking to the fact that some of it, at any rate, was at one time woodland, might be successfully replanted. There is, however, no room for experimental planting with imported and imperfectly acclimatised trees; and only such trees should be planted as are shewn to be indigenous to the district. Neither is there any scope for fancy figures of plantations, the simple square, or a block most nearly resembling this, being the only form admissible. A simple square of ten chains a side takes only 880 yards of fencing, while even a parallelogram of 20 chains $\times$ 5 (embracing an equal area) takes 1,100 yards, and a more extended or curved figure a still larger quantity.

THE COST OF PLANTING.

The cost of planting so largely depends upon the consideration just mentioned and other matters relating to the lie of the ground, the number and nature of the trees planted, and the method adopted of forming the holes, &c., that I hesitate to give any figure which can even approximately be generally applicable. But I feel bound to give below some half-dozen examples on which my hearers can for themselves strike the mean or average cost.

	Cost per Acre.		
	£	s.	d.
1 acre, planted with hardwood, cost -	9	18	8
500 acres, planted with pines and larch, cost - - - - -	3	0	2
20 acres, planted with larch, cost -	4	4	0
2,932 acres, planted with larch and spruce, cost - - - - -	2	10	0
2,231 acres, planted with larch and spruce, cost - - - - -	1	17	2
	5)	£21	10 0
Average - - -			
		£4	6 0

a sum, by the way, which almost exactly agreed with what was found to be the cost of planting an acre of rough ground with larch in Ireland.

Taking, however, such a small area as 20 acres to plant with mixed hardwood and pines, the latter to act as nurses, it would hardly be safe to calculate on a much less cost than £8 per acre. Of course, a larger area could be planted for less, and in some districts it would be found cheaper to plough than to hole, with equally good results. It is not wise, perhaps, always to give one's reasons for a statement. Here, however, it is, for the sake of the cause of which I am but a feeble advocate, advisable. Although fully conscious that I am thus giving myself away—for each separate item could, no doubt, be challenged, and probably radically altered according to the district—I have placed below the figures by which this conclusion is, rightly or wrongly, arrived at.

	£	s.	d.
1,500 hardwood trees, at 25s. per 1,000			
1,500 pines - at 20s. per 1,000			
Or 3,000 trees, at £3 7s. 6d. per			
acre × 20 acres =	-	-	67 10 0
Fencing, say - - -	-	-	30 0 0
3,000 holes, at 2s. per 100 = £3 per			
acre × 20 acres =	-	-	60 0 0
Rates and taxes, at 1s. 6d. per			
acre = - - -	-	-	1 10 0
Open drains - - -	-	-	1 0 0
For 20 acres -	£160	0	0
	Or, £8 per acre.		

THE METHOD OF PLANTING.

I must pass on to another matter. We plant, roughly, 3,000 trees per acre, of which 2,920 are for the purpose of

bringing to perfection the remaining 80 trees which form the ultimate crop. The 2,920 trees, cut at different stages of their growth, provide a revenue. For example, there is, in our Museum, a larch butt taken from one of 700 trees growing on an acre of ground in Ireland which are 30 years of age, and have therefore reached a marketable stage. On this acre 2,700 trees were originally planted, and 2,000 have been sold in the intervening period at an average rate of $3d. = £25$. This sum has not only recouped the first outlay, but, if distributed over 30 years, will be found to have yielded an annual revenue considerably greater than what was obtainable from the land before its conversion.

THE ROTATION SYSTEM.

This principle is so far sound, but it should be carried further. When the professors and students of the Forest School at Nancy, in France, visited the Scottish forests in 1881, they remarked with surprise "the monotonous regularity in the height and age of the trees," and reported their impressions as under.

"When, under such circumstances, the time arrives "for the trees to be cut down, or should they be uprooted "by a hurricane, the forest disappears in its entirety owing "to the total want of young growth, which is necessary as "a link between the old forest and the new one which "ought to be created."

It is difficult, but not impossible, to bring existing forests into such a course of systematic culture as would avoid this objection, but in making new plantations the plan is easier. If we are making a hundred acres of plantation we should parcel them out into, say, five different plantings of 20 acres each. On the Continent such a system is called the Rotation system, and is scientifically calculated on the basis of the age at which each individual

tree reaches its maturity. For financial and prudential reasons, what, doubtless, appears to the Continental forester, accustomed to deal with very large areas under the auspices of a government, a ridiculously small operation is contemplated here; but we are considering the case not of a government, but of a private proprietor, spreading the quota which he devotes to planting over a series of years. There is, besides, no possible objection to his adding a cypher or two to the hundred if he has the faith, or if he has the money to do so. Perhaps the initial cost per acre would be greater, although, if the intervals are employed in making nurseries of the trees which will be required, and which should be at least once transplanted to encourage fibrous growth before being put out, I don't know why it should be. The cost of the trees, if my estimate is at all a correct one, exemplifies this. But the principle is a right one, and will certainly repay, in the long run, its adoption.

THE AFTER-EFFECTS OF PLANTING.

It must, further, be remembered that when the planting is once done it remains as a permanent improvement, costing, as compared with agricultural land, little to maintain; and when it is cleared away and done with leaving the ground in far better heart than it found it. The pasture is always greatly improved. It was given in evidence before the Parliamentary Committee that the annual value of a piece of land 366 acres in extent was only £5 before it had been planted, and that afterwards it was easily let for £15. And anyone who has observed the effect produced on rough heather and mountain pasture by the droppings of larch will understand this.

A new edition (the sixth) of BROWN'S "Forester" has lately been issued, and in announcing it the publishers commit themselves to the following statements, to which

I for one give in my adhesion. I venture to commend them to the consideration of all those to whom the future management and occupancy of land (which under the continuous fall in the prices of all sorts of produce has entered on an entirely new phase) is an enigma insoluble through the agency of a Royal Commission:—

“In the introductory portion of the book, the whole question of the climatic and national economic importance of woodlands has been fully entered into, and it has been clearly pointed out, owing mainly to the clearance of the forests in the United States of America, and to the fact that new industries (wood-pulp, &c.), still in their infancy, are making large and ever-increasing demands for raw produce in the shape of wood, within the course of about 20 to 30 years there may be something very closely resembling a timber famine. As timber, along with gold, is one of the very few articles that have, during the last half-century, steadily appreciated in market value on the Continent of Europe, whence over the half of our annual imports of about £18,000,000 worth of timber are drawn, it should require little argument to point out to owners of vacant land unsuited for profitable agriculture, that a fair promise is held out of favourable home markets for wood that may be mature within the next 30 or 50 years.”

It is to be hoped, with but feeble confidence, it must be confessed, in some directions, that the cry of the barbarians of the French Revolution, “Après nous le déluge,” will not be adopted in principle in this country. In the transition stage of education, this living wholly for and in the present may be a good point for the rural platform, but it can hardly be openly avowed by a sane Administration.

THE VALUE OF OBJECTIONS MADE TO PLANTING.

But some one will say trees will not grow in this

country. To a professor of botany well versed in his subject, and for that reason most keenly conscious of the neglect of forestry, the most interesting and the most educative part of his tour in the district through which the new West Highland Railway passes is the multitude of tree stumps, the relics of the ancient forest, and he asks "Why should not this be all replanted?"

DARWIN visits the heath lands of Farnham, in Surrey, and in "one square yard, at a point some hundred yards distant from one of the old clumps, I counted thirty-two little trees, and one of them, with twenty-six rings of growth had, during many years, tried to raise its head above the stems of the heath, and had failed. No wonder that as soon as the land was enclosed it became thickly clothed with vigorously-growing young fir trees."

Another objection that is made, and one to which the *imprimatur* of Government belief was at one time attached, although now happily removed, is that the wood grown in Great Britain is, as compared with foreign, of little value. Naturally, when the comparison is made between the wood of an English tree fresh from the axe or the saw-mill, and the well-seasoned deal imported from abroad, the conclusion is in favour of the latter. But it needs no argument to shew that such a comparison is manifestly unfair. It at the same time points out a want. A neighbour said to me the other day, "How is it that I can get little or nothing for my felled or windblown timber, and I had to pay nine guineas for the few sticks I required for that out-building?" The answer is obvious. There is no saw-mill within a reasonable distance, and you have not on your estate one of those small travelling steam saws which can be easily worked by three men in their spare time, of which in winter there is ample. You offer raw, green produce, all of it in unwieldy, and much of it in useless, bulk; you are

buying seasoned and handy material squared and ready for use.

This brings me, naturally, to the subject of the carriage of timber, which in itself simply kills profit. The railways, from considerations in which patriotism finds no place, offer preferential rates for foreign timber. That is a bar over which the landed proprietor has not, although he should have, control. But he places another bar on himself when he loads a rough trunk on the railway and elects to pay carriage on a great proportion of bulk absolutely useless to the wood-merchant.

Another point which the buyer will consider, if the proprietor does not, is the likelihood of the wood being sound and valuable. In this he will, doubtless, be guided by the nature of the soil in which he finds the particular kind of tree growing. Larch timber is, we all know, most valuable when cut from a healthy and fairly mature tree, but that tree must be grown on suitable soil, and the wood-merchant is buying a veritable "pig in a poke" when he bids for a larch, however vigorous it may look standing in wet low-lying land.

THE CHOICE OF SOIL.

It is not possible to say that attention to these and other considerations, which, of course, affect coppice as well as the larger plantations, will result in a direct and immediate pecuniary profit. But, in dealing with agricultural land, the adaptability of the soil to the crops proposed to be grown, the nearness of a market, and the local demand, together with the means and cost of transport, are some of the very first considerations which are to be looked to. Why, then, should they be neglected in dealing with woodlands, on the rough-and-ready assumption that a tree will grow anywhere? Granted that the climate and soil of Great Britain (perhaps

it is more correct to say the varieties of the climate and soil of Great Britain) render the practice of forestry, which, as the French expert put it, would be "altogether detestable" elsewhere, possible and effectual in this country, there are yet certain soils and aspects adapted to certain trees, the selection of which alone will enable them to attain their full development.

Travellers in the Upper Himalayas have observed that the mountains which faced the North were covered with dense forests, while those facing the South were arid and treeless, the effect of aspect being thus very strikingly exemplified.

From my knowledge of other countries where a rainfall of more than the annual average fall in Great Britain is experienced within the space of two or three days, with effects which those who have not seen them can hardly imagine, I am tempted to insist upon the advantages of plantations and woods in the way of providing natural drainage, in the arresting of the washing away of the soil by floods, in the prevention of the erosion of river banks, &c. But I am aware that these are, comparatively speaking, inoperative in our own country, and their importance will only come home after a season of extreme drought, or one of extreme moisture.

THE DIRECT VALUE OF PLANTATIONS FOR SHELTER.

I need, however, exercise no such reticence in the matter of shelter, to which I have above alluded, as a conspicuous and direct source of profit afforded by plantations and forests. There must be many instances, which will recur to the memory of everyone engaged in the management of land, where ground, lying under the lee of woods, is made fit for occupancy, during the early and late months of the year, by sheep and by cattle, and where,

if the belts of timber be only deep enough—for narrow belts are entirely useless, and, indeed, are soon levelled or destroyed—much advantage has been gained by intersecting wind-swept uplands by plantations. I shall here permit a forester, experienced, skilful, and successful, to tell a story which came under his own experience, in illustration of this.

A proprietor, having scooped out the lowest part of his land for enclosures and planted the wood round them in masses, enlarged or contracted, as the natural lying of the ground seemed to dictate, met, six years after these changes, his former tenant on the ground, and said to him, “I ‘suppose, Mr. R——, you will say I have ruined your “farm by laying half of it into woodland?”

“I should have expected it, sir,” answered Mr. R——, “if you had told me beforehand what you were going to do, “but I am now of a very different opinion; and as I am “looking for land at present, if you are inclined to take for “the remaining sixty acres the same rent which I formerly “gave for a hundred and twenty, I will give you an offer to “that amount. I consider the benefit of the enclosing, and “the complete shelter afforded to the fields, as an advantage “which fairly counterbalances the loss of one-half of the “land.”

WHAT CAN BE DONE IN THE WAY OF FORESTRY.

Dr. NISBET in his “Studies in Forestry,” which consist of two short courses of Lectures on the Principles of Sylviculture, delivered in 1893 at the Royal Botanic Garden, Oxford, stated on data for which I must more particularly refer the reader to his published book, that if our three millions of acres of woodland were as economically and as well managed as the German forests, they would yield annually very nearly £2,000,000. In another place he

evolves a scheme for instituting a thorough education in forestry in this country, to cost about £4,500 per annum — or less than three farthings per acre per annum, for the land actually under timber.

The recommendations of the Parliamentary Committee were on a much more modest scale, viz., £500 per annum, consisting mainly of a small Board to work in unison with the Department of Agriculture. All that has yet been done is the giving of small grants to the Edinburgh University, the Glasgow Technical College, the Botanic Garden, Edinburgh, and the Durham College of Science—that at the last-mentioned place being supplemented by a grant from the County Council which has led to the establishment of a Chair.

The work of a Government, however, in this country will always be to foster and encourage, not to initiate, such an enterprise as forestry, the forests and woodlands being for the most part in the hands of private individuals. The focus of such initiation lies within these walls, wherein are represented owners whose lands might thus be utilised, and agents who have the practical management of them. The question of the employment which would thus be provided for the classes immediately under the control of these—the woodmen and the labourers—might well enlist the sympathy and call forth the support of a politic central Government or Administration—as well as of the County Councils, to whom the need for employment in the rural districts, coupled with the disadvantages of unoccupied and, so far as rates are concerned, useless land, is more pressingly apparent. If, as I fain would hope, there exists amongst the Members of this Institution the desire to see the science of forestry more widely extended, there should be little difficulty in pressing on the Government of the day such a practical and economical scheme as the one above referred to, which

received the approval of the Select Committee, and which, I believe, was evolved and put into shape by our Secretary, Mr. ROGERS.

THE SECRETARY then read the following extracts from letters relative to the discussion :—

From General MICHAEL, C.S.I.

BANGOR LODGE, ASCOT,
30th March, 1895.

MY DEAR CADELL,

I am always glad to see quondam officers of the Indian Forest Department giving the benefit of their experience and knowledge to the Mother Country and the Colonies. It stimulates the interest which India's success has so happily tended to spread. It is a great thing that The Surveyors' Institution has taken up the subject so warmly, and I look on your Museum as a very valuable aid to students wishing to qualify as land agents. It is to them, and to the landed proprietors they serve, that England must look for extending forestry and maintaining or increasing our home timber supply.

The State can only be expected to aid by setting a good example on Crown lands, and by fostering education.

But in the Colonies it is different, and forest conservancy ought to find a good home there, unfettered by communal rights and claims and such like hindrances.

Have you seen Lord ELGIN's important Resolution and Order, of October last, in which he lays down the principle that the acquisition of revenue ought to be subordinated to the carrying out of good conservancy in existing forests, and to a proper regard for communal rights and the wants of the people?

That was the very principle which the Madras Government enunciated and insisted on when I was working out their early forest attempts between 1848 and 1856, and the effect of it rendered any opposition almost nil. But I suppose, that, of late years, this must have been lost sight of to some extent, or Lord ELGIN's order would not have been necessary.

I am afraid that, in England, the tendency of the present age is to shy off any expenditure which does not give an immediate return, but there must be a good many heads of families who would be glad to plant for their sons' benefit if it could only be clearly brought home to them that timber planting, after reasonable methods and with proper after treatment, may really be made a fairly profitable venture.

From Professor BAYLEY BALFOUR.

March 30th, 1895.

DEAR MR. CADELL,

I fully acquiesce with your views, as you know, and what you say in your Paper cannot be too strongly impressed on the public.

My own view of how we are to overcome in Forestry matters you are aware of. I believe that if we had a few competent practical men in the country, who could not only preach but act, we should progress rapidly. I cannot but think that the men who will go out this summer from here, who have had three years' teaching of the scientific principles underlying their forestry practice, will exercise an important influence upon forestry in the country. That the training they have had is right has been strikingly shown in this—that two of our men went up for the H. & A. Soc. Forestry Certificate the other day and each obtained a first class. The difficulty it seems to me that landowners meet with just now is that they have no one in practice who knows the scientific management of woods. The older foresters are ignorant of it. Good woodmen they are and many are most intelligent, but they have not had the scientific points put before them, and they go on upon rule of thumb methods. Given a set of practical men trained on what we now recognise as the only sound system, and landowners would have confidence in the future of their woods, and would plant.

From Professor CURTIS, F.S.I.

MY DEAR SIR,

I am of opinion that little progress will be made in planting until landowners recognise that planting for the benefit of future generations is one of their primary duties. It is not altogether a question of finance, and the production of figures proving that it will pay or not pay, but whether it is wise to dis-afforest as they are doing; for to reap year by year what was planted in the past and not to replenish by planting or management of natural growth is nothing less than this.

I hope the day is not far distant when forestry will become "a well-established industry" and cease to be an experiment as at present.

It will not forward the matter, however, to set forth a cost of £8 per acre. In my opinion no commercial planting will cost anything like this. If I am wrong, then I would never advise any landowner to plant. The error in Mr. CADELL's figures (page 327), if error is admitted, lies in the cost of trees. No landowner, if he planted for profit, would purchase his trees from a nurseryman except as seedlings; these he would pass through his own nursery at half the cost.

A point of importance, if planting is to succeed and if present woodland areas are to yield a profit, is to reap the timber when ripe and not to allow it to waste. Mr. CADELL has not, I think, touched upon this important principle.

I am convinced by long experience that planting, wisely and judiciously carried out, will pay, though the profit arising must necessarily be deferred, and I trust Mr. CADELL's valuable Paper will aid this desirable end.

Mr. E. P. SQUAREY (Past President) begged to offer

to the author his most cordial thanks for his Paper. Mr. CADELL was a Scotsman, and he (the speaker) had felt a little surprised that he had not taken as a text a well-known passage in one of Sir WALTER SCOTT's novels, viz., the advice given by the dying Laird of DUMBIEDYKES to his heir "JOCK." "JOCK," he said, "when ye ha'e naething else to do, be aye sticking in a tree, it'll aye be growing while ye're sleeping." He supposed that this sentence of Sir WALTER SCOTT's had led to the planting of millions of trees in Scotland with the most beneficial results, economical and agricultural. The Paper contained a great deal of condensed information which could not fail to be of the greatest use, not only to the Members of the Institution, but to everyone interested in forestry, and he hoped and trusted that the time would come when some pressure could be brought to bear on the powers that be, with the result of elevating forestry into the position of a recognised systematic science, and the establishment of a really authoritative teaching college of forestry in this country.

There existed, in districts with which he was acquainted, much useful land which was now derelict, and he for one had tried to induce some friends to combine in a little speculation—he would not call it gambling, because the results, to his mind, would be absolutely certain—on the following lines. These lands now lying in a derelict condition, and of a certain character of soil, he suggested that, to make them profitable, sufficient ash, birch, and larch seed should be collected, and that they should be sowed with it, after being properly scarified and fenced, and then left to nature, care being first taken that every rabbit should be destroyed. In a very few years, he felt sure, the larch, birch, and the ash would come up and would produce a fair profit, with the prospect of a considerable revenue in the future if the land was fairly well adapted for the purpose

of the growth of these trees. With ash, especially, 50 to 70 trees per acre would be a crop that would pay something like a fair rent of 7s. or 8s. an acre for the land, and probably 5 per cent. interest, the initial cost being so small. There was one point on which he should like to ask the experience of Members. Were there any oaks in England, now growing, that would attain the size and dimensions of the oaks of which we read of in the past, and those now passing away? For the last 40 years he had been asking himself that question wherever he went, and he confessed that his belief was that it must be answered distinctly in the negative. He did not venture to theorise on the causes which have brought about such a state of things, but he knew, and felt sure that his statement would be confirmed, that there were oak trees in Sherwood Forest and at Longleat (and a few in his own district), which certainly had, at the present time, something like 1,000 ft. of timber in them. Except one tree in Northamptonshire, he knew of no instance of a promise of more than 500 ft to 600 ft. in any oak now growing. The question was one quite apart from Mr. CADELL's Paper, but was most interesting.

Mr. JOHN SHAW (Fellow) said he thought the Institution was greatly indebted to Mr. CADELL for his admirable Paper on a subject which he believed to be of the utmost importance, but one which was a good deal overlooked. It was important at all times, but particularly at the present time, when everything needed careful consideration which could possibly tend to the improvement of the position of the landowner. Of course it was easy, generally speaking, to say the landowners themselves had neglected it; but in the case of many estates, within his own knowledge, the principal cause of that neglect had been the scarcity of means. The

money, unfortunately, in the case of many large estates, had to be expended in repairs and improvements to buildings, which the landowners felt to be of the first importance, and on which tenants insisted.

The Paper contained a most interesting account of Forestry in India and on the Continent of Europe, and gave very carefully-prepared statistics as to the cost of planting in this country. Those statistics might be taken to be correct, he thought, as to the average cost, but, as was well known, it was not possible to take any average estimate as representing the cost of planting on every description of land ; so much depended on the district and on the preparation of the land.

An illustration was given of book-keeping, which Mr. CADELL said had been prepared by a forester. It began on January 1st, 1894. The expense of planting and interest on outlay were given at £108 6s., and then it went on next year on the same principle, but in the second year a balance of £117 0s. 3*d.* was carried forward over the whole period of ten years, no allowance being meanwhile made for grazing rent and interest on outlay during that time. That seemed to him scarcely a system to be practically adopted. He thought that working on the same principle as that adopted for the first two years the actual result would be a balance of something like £225, as against £129 3s. 3*d.*, as shewn in the Paper. He only mentioned this by way of shewing how necessary it was to be accurate in keeping accounts, and particularly so in the case of woodland ; and he was sure Mr. CADELL would pardon him for calling attention to the point. It was said that much depended on the choice of soil, and he agreed with the author entirely as to this. One must crop according to circumstances. When corn had to be sown it must be selected according to the nature of the land—so in

forestry. One would not, as a rule, plant larch in strong clay soil, or, on the other hand, plant oak in very light sandy soil.

Another question was as to the size of the plantation. He agreed with Mr. CADELL entirely, that it was useless to attempt little strips. To ensure success it was necessary to have a good-sized plantation, particularly in a district such as one of his own, on the high lands.

Another point with reference to planting had been brought to his attention by the late Mr. RIDLEY, whom many of those present knew as one of the Land Commissioners. That was, the importance of beginning always at the bottom of the hill, when planting high ground, and of working up, so as to acclimatise the trees. This was a point of importance, he thought, in planting.

Another point upon the importance of which he would like to insist, at the risk of being thought extravagant, and which, of course, might not apply to many of the districts which Mr. CADELL had mentioned, was, the double-digging of the land. His (Mr. SHAW's) experience of double-digging was that it added considerably to the expense, but, where the land was suitable for it, he found it was a great advantage to double-dig. He would not say it was of very great advantage in the first few years; but when the trees began to take root, and to spread themselves, the result, in his experience, was marvellous.

Another point which was mentioned in the letter from Professor CURTIS was with regard to the growing of plants, and the difficulty of getting proper plants when the plantation was made. He had himself been much disappointed for many years in this respect. He had to plant and replant, because he could not get trees just suitable at the right time. He had ordered trees from first-class men, but by the time the trees reached their destination there had,

perhaps, been a sharp frost, so that they could not be put in the ground, and many were thus lost.

It was, perhaps, some 25 years ago that he had established, on one of the estates under his management, a nursery, in which the seedlings were planted, and where the plants grew with the most complete success, the land being well sheltered. The seedlings were bought at a small sum per thousand, and were planted and allowed to grow, and then, when plants were wanted, there was nothing to do but to send a man to the nursery and take up the plants and put them in the ground. That, to his mind, was the most successful plan to adopt.

With regard to the financial results of planting, he could mention several instances which shewed very satisfactory results; but he had not the details with him. He remembered one landowner who had planted trees when he attained 21 years of age, and who lived long enough to see them cut down and bring in a very large return.

His friend, Mr. SQUAREY, had referred to some estates at Longleat, and he remembered that, two or three years ago, he had the privilege of going with Mr. SQUAREY, and some other gentlemen, over the Longleat Estate, and, if time had permitted, he would have given some details of the results which had been attained in the lifetime of the present owner. He thought he was right in saying that several trees which were planted when the Marquis of BATH came of age, had now grown into magnificent timber. Of course, the estate was very suitable, and the plantings of larch and such-like trees were intended, in time, to form large woods.

He had very little doubt that planting would be beneficial, from a financial point of view, if it was possible to keep the plantation properly protected, and to exterminate

the destructive rabbit, which caused so much mischief to the young plants.

Dealing with the question of shelter, Mr. CADELL used very forcible arguments. He did not think too much could be said as to the advantage of planting for shelter, particularly in the colder districts. Shelter in any district was very important; but in the very cold districts, of which he knew a good deal, cattle could hardly live without shelter. He was prepared to endorse everything Mr. CADELL had said on that part of the subject.

He could only, in conclusion, express a hope that the subject would come more prominently forward on the lines taken by Mr. CADELL, and be dealt with as one of the very greatest importance. He knew that many of the younger Members of the Institution had paid a good deal of attention to forestry, and, perhaps, had more knowledge of it than some of those, like himself, belonging to an older school.

Sir MARK STEWART, Bart., M.P. (Visitor), said there were so many points of public interest in the Paper, that he could not refrain from saying a few words in cordial approval of the vote of thanks to the author. The Paper was full of illustrations and practical suggestions which he could only venture to endorse and emphasise.

He was one of the Select Committee of the House of Commons which made what they knew to be a well-considered, and hoped would prove a useful, Report. Several of them—Sir JOHN LUBBOCK, Mr. FERGUSON, of Novar, and the late lamented Sir EDWARD LECHMERE, and others—had often attempted to draw the attention of the Government to this most important question, affecting as it did the interests of agricultural owners and many others throughout the country. There could be no doubt that the

wood supply from abroad was failing—was being, he might almost say, rapidly used up—and, unless some way out of the difficulty were devised and the regular supply ensured, he feared that our successors, a generation or two hence, would be in the position of finding wood almost as valuable as gold.

He might mention that, on his own estate, and those in which he was interested, he planted from 40,000 to 50,000 trees a year, and therefore could claim to speak with some knowledge of trees in his part of the country (the south-west of Scotland), and it had occurred to him that, if he detailed the mode of operation which he found most successful, he might render the best service in his power to the Members of the Institution as a body of practical managers of landed estates.

In the first place, he quite agreed with a former speaker that it was most important to acclimatise the plants. A near neighbour of his, who planted very largely, agreed with him on this point, and would on no consideration plant trees which had not been for one, two, or three years in his nursery.

They found larch and Scotch fir the most suitable trees to grow, and believed the seed was the purest and the plants the hardiest which came from the north-east of Scotland, for cultivation in the south-west; just as in the case of grain. They always got their seed corn from the east coast to plant on the west coast, and they thought it was healthier and produced very much better corn than did their own seed. They adopted the same course every year with Scotch fir and larch in particular. They found that larch brought from the north-east of Scotland grew marvelously when brought into a somewhat softer and more sheltered clime, such as on the south-west, where, of course, the influence of the Gulf Stream was greater.

Then, with regard to planting. They generally had to plant, he was sorry to say, in the early spring months. He was satisfied in his own mind that if they could plant in November, it would be much better in every way. Their great difficulty was the rabbits. It seemed almost impossible to keep them down or keep them out. The system he found most efficacious in planting was to have a fence of a height of at least three feet from the ground, the wire being buried into the ground some five or six inches on the outside, so that a rabbit, however it scraped and scratched, could not get in past the buried wire. There was another point in connection with fencing which was important, and perhaps not generally known. The top of the posts—of course, not very stout ones—ought to project above the wire some six or seven inches, and from post to post should be run a single line of wire. No hare could then jump the fence. It would try to jump it, but would catch its breast against the wire, and would not be seen ever to try again. It was found in his district that the trees grew best in years which had a moist June. Trees which might live well through the spring often suffered when June came and there was less moisture in the ground. If they once got over June they were pretty certain to do well.

Then, in his district a very curious element of destruction had operated during the last winter, which he had never known before (and he spoke with a good many years' experience). There occurred awful gales on the 24th and 31st December, and the small trees, not a foot high, were blown completely over—trees of 2, 3, 4, and 5 years' growth. How the wind could have touched those small trees, not the height of one's knee, and blown them clean over, it was certainly difficult to understand. It was, of course, not so serious a loss as in the case of forest trees, of which thousands, or even millions, were destroyed in his part of

Scotland, for it only required that the forester should go round at the cessation of the gale and stamp the roots firm, and give them fresh earth support.

The great difficulty which he had found was that the cost of carriage claimed all the profit of tree growing. It was not possible, sometimes, to sell really good timber, except larch, which would always sell, for it would last from 10 to 15 years without painting, but ash would not last, although it was useful for making carts, and for other farmhouse purposes. He did not think ash lived over 100 to 150 years, which was not a very long time for a tree. Larch paid its thinning in 15 years, and became valuable in 40 or 50 years.

The silver fir was one of the great features in his part of the country. Some of it on his estate was, he believed, second to none, but the carriage question rendered the timber absolutely unsaleable. He had trees now lying which were 15 feet or 16 feet in circumference, but no wood merchant would take them away unless he were paid the carriage.

He had, himself, a portable engine such as his friend, Mr. CADELL, had suggested, which was a very useful thing. This engine was taken from wood to wood as cutting was going on, and was used to render the timber ready for sale; but, in the case of a tree of 15 ft. to 16 ft. in circumference, it required much heavier machinery altogether, and one's men or horses could not easily deal with it, and the ordinary means of transport were also unequal to the task, so that it lay rotting. For 50 trees blown down in the great storm of 1884 he got a bid of £45, and that only by a mere chance. Those magnificent silver firs were bought at less than £1 apiece, although the transport was only 16 miles. The wood merchant would not even take them away except on

condition that he did not lose anything, so that he (the speaker) in reality only got £5 in the end for 50 of the finest trees in Scotland.

He considered that larch would pay in 15 years, if it were planted in suitable soil. He had planted it on the hill-side, where, practically, nothing else would grow, for one could be almost sure of good larch in his country with an eastern exposure, which he thought was the best; he supposed because the trees got the early sun. Sycamores, or, as they were locally called, planes, and also pinasters, were planted to protect the larch from the wind as much as possible on the outside of woods.

With regard to shelter, he did not think many persons realised the full advantage of sheltering, and he was glad that the point had been strongly emphasised in this interesting Paper. It was often the very salvation of cattle and sheep in such cold winds as had lately been prevalent. As the farmers in his country expressed it, it was half food to have the animals under good shelter, and being a large practical farmer himself he could quite endorse that statement.

Sir HUGH BEEVOR, Bart. (Visitor), thought the question of forestry was one of the very greatest importance to all owners of landed property, for if the agent or factor who had the management of such property knew as much of forestry as of other matters purely agricultural, he would be able to save a portion of the capital now lost in farming, by exercising his knowledge in that direction. It had been very generally mentioned that rabbits and forestry were incompatible; but he would suggest that the land should be planted, first of all, with a certain proportion of box. On a sporting estate it should be understood that a certain amount of plantation (say one-tenth) might be wired in for

ten years at a time. Under that system of procedure plantations might be kept growing, and still be compatible with sporting.

It had been said that landowners could not plant trees to cut down in their lifetime, but he knew of a case where this had succeeded. His grandfather had planted, in one plantation, a black poplar, and had during his lifetime cut it down and sold it for £16. He had to thank his grandfather for the results of some plantations, which were only two hundred acres. They were planted from 50 to 70 years ago, and for 20 years produced (the plantations being kept with the largest amount of standing timber possible) £1 an acre. He had not the account for the whole time, but it was to the present day that amount, net, after all deductions, annually.

He felt that it was only by the most strenuous advocacy, such as Mr. CADDELL used, that the value of forestry could be brought prominently before the public.

He would point out one other useful end for the development of forestry besides its assisting agriculture and assisting sporting in England (and the two, he believed, might be made compatible), and that was, its great value to labour. One constantly heard of labourers being paid off in the winter, which would not be the case if the practice of forestry were more widely prevalent.

The vote of thanks having been put and carried unanimously, the discussion was then adjourned.

AT
THE ORDINARY GENERAL MEETING,

Held on Monday, 29th April, 1895.

DANIEL WATNEY (VICE-PRESIDENT) IN THE CHAIR.

The discussion on the Paper read at the last Meeting by GEORGE CADELL (Associate), entitled "Forestry," was resumed.

THE CHAIRMAN said that a number of letters had been received from gentlemen interested in the subject who were unable to attend the discussion.

Lord WINCHILSEA wrote:—

Undoubtedly there is a good opening for planting, on a large scale, in many districts. It is unfortunate that the same burdens which press so heavily upon our native agriculture also affect the land which might otherwise be devoted to that purpose, and will, no doubt, discourage people from investing money in that way.

There is also much room for improvement in the management of woods which already exist.

In many districts, however, the decay of agriculture carries with it a cessation of the demand for underwood. On my estate in Kent, which I have since sold, I had 1,200 acres of wood, very well managed in regular rotation, the produce of which averaged, until recent years, at least £700 a year, and about 50,000 trees a year were planted. Now, since the hop industry has been ruined by foreign competition, it is not worth £250.

The Marquis of LORNE wrote:—

Anything done to get public opinion to give landowners a chance of finding that there is some security in putting money into land will do good. The tendency of the language of most politicians now is to convince landowners that capital is better invested in anything rather than in the improvement of land. Afforesting needs security as much as does building for farmers or labourers.

Sir JAMES CAMPBELL (late Surveyor of Dean Forest)
wrote :—

The subject of forestry is one in which I have taken a practical, if not an almost professional interest, for more than 50 years in royal forests; but my work was chiefly confined to growing oak timber for the navy, to which other things were subordinated, so I had little or no chance of being able to test the "financial" side of the matter. The various plantations in Dean Forest were made at many different times during the last 80 years, and the accounts treated as one concern almost. So it would have been most difficult for me, even if I had had the time to trace the cost of making and maintaining any one plantation or set of them of similar ages, to show from the books the average return per acre per annum.

However, I have no doubt whatever of the value of planting for profit, the more especially as trees of one kind or another will grow on almost any soil. The practical objection to it, hitherto, has been the long time it took to get any return from it, but now that any other kind of crop is of little value the poorest kinds of land will probably be more extensively planted, seeing the immediate loss of rent will be comparatively small, and the trees will be growing all the time to a remunerative profit, and the land regaining strength for other crops if it will pay to cultivate them.

The shelter, too, from plantations, is of immense value to pasture as well as to corn land; and I should have done more in my small way in Scotland, had the farmers not objected to them for many years as harbours for "vermin," as they called hares and rabbits. But those plantations which I did make soon made so great a difference as they grew up, that I have been often asked since to plant for shelter on farms, notwithstanding that rabbits have greatly multiplied. I should have been very glad to do it, but agricultural depression has so lowered rents, that it has prevented my being able. I do not quite agree with the French "rotation" system of planting, although it sounds well. Where you have trees of various sizes and ages intermixed, the damage done to the smaller ones by falling the larger ones is often very great, but in France and Germany this does not signify so much, as the undergrowth, which we call coppice in Scotland, is cut periodically for firewood, and advantage is taken of the clearing to fall the large trees, before the undergrowth begins to sprout again. This is done more or less in England to this day, but the number of standard trees that can be grown in such woods is very small; consequently, but for our hedgerow timber (of which there is little or none in France or Germany) there would be little full grown timber to be had.

As regards what I may call Schools of Forestry, have we

woodlands enough, or in prospect, to make these necessary; and if we had them, could ordinary foresters afford to be educated at them? No doubt factors or managers of large estates could do so, but not those below them. Why should not forestry be suggested to County Councils as a subject for technical education for the lower grade of forestry, in connection with agriculture? It is not a difficult subject, and a good manual of practical forestry, put into the hands of those who aspired to be woodmen or foresters, would soon show them what was wanted, when properly explained to them, by any masters or professors that might be employed to give lectures on the subject.

Professor SOMERVILLE wrote:—

For reasons that are familiar to all who have studied the question, I do not anticipate that either education, or advances to landlords at a low rate of interest, will materially improve our sylvicultural practice, or bring about an appreciable extension of our woodlands. A wealthy land-owner plants trees as much for shelter, beauty, and sport, as for a money-return; a poor land-owner cannot afford to plant, and thus lie out of his much-needed capital, however rosy the deferred returns at the end of three-quarters of a century may be.

It seems to me that if ever our wide areas of unproductive lands are to be stocked with trees it will be through the Government purchasing such land and not by private initiative. Most people say that it is absolutely hopeless to expect this, and in the meantime I must say it would appear so.

There is just one other way by which our barren hill-sides might be clothed with their natural crop, and that is through companies or associations acquiring the land by purchase, and working it as timber-estates on joint-stock principles. I suppose the "deferred returns" difficulty will again form an impossible obstacle, but I do not see why this should be so. We do much, and incur considerable outlay, for our families and successors, and as an example I may instance life insurance. All who took part in the interesting discussion on the 1st inst., and, of course, hundreds of other enthusiasts maintain that, with proper management, forestry may be made a profitable industry. Is it impossible, then, to gain the co-operation of a few hundred men who, for the sake of the principles they hold and profess to believe, would join together in raising a capital of £5,000 to £10,000 for the purchase and planting of a small estate with forestry as the sole object? We believe that the original outlay will ultimately be returned with interest, but, beyond that, what a boon a purely commercial forest, worked on strictly scientific and economic principles, would be to the country! In a few years there would be no need to bewail the absence

of reliable figures as to cost of planting and management, and the revenue, gross and net, would also be a matter of no uncertainty. I shall anxiously await an expression of opinion on the subject.

Mr. JAMES PRICE (Consulting Engineer for Railways in Ireland) wrote :—

If the British Government, in 1848, had taken in large tracts of Ireland, then to be had almost for nothing, by this time they would possess great national forests, most profitable, giving large employment, and improving the whole climate. £1 spent on planting *poor* lands will produce more pounds at the end of 60 years than £1 invested in almost any trade—certainly than if invested in any reasonable rate of compound interest.

Mr. A. MACDONALD BROWN (Fellow) said, in resuming the discussion upon Mr. CADELL's Paper on Forestry, he proposed to deal only with that part of it which referred to the *financial results* of woodland, and to contribute some facts of individual experience which, he took it, it was the principal object of the discussion to elicit.

The practical points of a discussion on forestry at the present time appeared to be :—“ Under what circumstances “ could agents advise landowners to plant, as a preferable “ alternative to the present use of the land ? ”

“ Supposing an owner to be able and willing to plant “ for the benefit of his heirs, provided he were satisfied that “ there was a reasonable prospect of a better ultimate return “ than from agriculture, what were the data upon which “ the calculation must be founded ? ”

He would confine the inquiry to the case with which he was best acquainted, that of beech woods and larch plantations on the Chiltern Hills—land which had never let for much more than £1 an acre, and was now down to 10s. or 12s.

Taking the case of larch :—

1st. *The cost of planting.*—In his letter, read at the last Meeting, Professor CURTIS stated that Mr. CADELL's estimate of £8 an acre for a hardwood plantation with pines as nurses was altogether too high, and that he would never advise a landowner to plant at such a cost. What must have been the Professor's feelings if he chanced to read the article which recently appeared in the *Daily Chronicle*, in which the cost of planting on the Tring Park Estate was given at £12 to £15, without trenching? These high figures were accounted for by the fact that the owner preferred to see well-grown trees put in, 4 feet high, and these were expensive, costing 50s. or more per thousand.

The ordinary cost of planting larch, as usually carried out on the Chilterns, was about £7 10s. per acre, with plants about 2½ to 3 feet high, placed 4 feet apart, at 30s. a thousand, and pits dug at 25s. a thousand. The necessary attention and filling up during the first 3 or 4 years would amount to about £1 an acre, making the initial cost £8 10s. per acre, exclusive of any fencing that might be required.

He should be glad to hear an expression of opinion from Members who have had experience in the matter, as to the feasibility of decreasing this cost, either by planting further apart, or by planting in the Scotch fashion. At 5 feet apart, instead of 4 feet, there would be a saving of 1,000 trees and pits, reducing the £7 10s. to £4 15s. There would be longer to wait for the first thinning, but it would probably be more valuable. Would the plants be likely to thrive as well as when nearer together?

He had asked a Scotch forester the other day if he knew of any reason why the Scotch system of "notching in" seedlings had never been adopted in his own (the speaker's) neighbourhood, and the reply was that he could think of none except that there was so much money about there. If

this were the only reason he would take care that the experiment was no longer delayed, but he should be very glad to hear the experience of any Member present who had tried this cheap planting of larch in England.

The *annual outgoings* formed the next element in the calculation, and would consist of the cost of attention to the plantation, and rates and taxes. The cost of attention to a larch plantation after the first three or four years (which he had included in the initial outlay) would not be more than about 2s. 6d. an acre for a further 8 or 10 years, and 1s. 6d. an acre would cover rates and taxes. If, however, there were a tithe rent-charge upon the land to be planted, this would form in some cases a serious item of annual outgoing, and it might be advisable to consider the question of redemption.

The method of dealing with these data was all-important, and, of course, a proper estimate of annual average return could only be made by taking into account the interest on outlay. The question was, at what rate? Mr. CADELL took 5 per cent. in his example of book-keeping, and, perhaps, in view of the risks of storm, disease, and fall of prices, this was not excessive, though there were subsidiary benefits from planting, such as shelter, ornament, and sport, which could not well be reduced to money value.

An initial cost of £8 per acre would, in 20 years, accumulate, at 5 per cent. compound interest, to £21. Outgoings, at 5s. per annum, would accumulate in the same period to nearly £9, making £30. The thinnings of a larch crop during the first 20 years might repay this, but probably without any surplus to form rent.

After this the thinnings should yield a profit which might be calculated as follows:—

At 40 years' growth, a net value of £90 an acre, after deducting the accumulated outgoings (about £10), would be

equivalent to a rent of 15s. an acre for the whole period of 40 years, or 55s. per acre for the second 20 years, with compound interest still at 5 per cent.

At 60 years, a net value of £132 per acre would be equivalent to a rent of £4 an acre for the third 20 years.

At 80 years, a final crop, worth £165 net, would equal a rent of £5 an acre for the last period of 20 years.

He gave these figures merely as illustrating the *method* which he thought should be adopted in attempting to give an opinion on the question, "Will it pay?" The actual data would have to be arrived at in each case from the recorded results of plantations in the particular neighbourhood, the local market for timber, and many other varying circumstances.

The figures he had given might be commuted into a uniform rent for the whole period of 80 years for comparison with the rent of the land, if unplanted, and would come out at about 28s. 6d. an acre, with compound interest at 5 per cent.

But the division into periods corresponding with the thinnings would probably be most useful to the planter, shewing him what *he* might expect and what his *heirs* might have in store for them.

Turning to beech woods, he was unable to give any recorded figures as to cost of planting and time of commencing realisation, nearly all the beech woods on the Chilterns being self-sown and continuous, treated as a permanent periodical crop; but he was able to furnish a statement of fact as to the annual yield of a typical beech estate in full growth, which might be of some service as an accurate record of actual results.

The estate he referred to contained 152 acres, divided into 11 woods lying among arable land, formerly letting at about 20s. or 22s., and now at 10s. or 11s., situate on the

Chiltern Hills in Bucks, on a subsoil consisting of 20 or 30 feet of red flinty clay capping the upper chalk.

His firm commenced the management of this area in 1875. The system followed had been to thin a portion each year until the whole had been gone through in 16 years, and they had now completed the fourth year of a second course of thinning. He had in his hand a detailed statement of the gross and net return from each year's fall for these 20 years, drawn up by his partner Mr. FOULKES, which might possibly be deemed useful as a small contribution to the statistical side of the forestry question. The results he would summarise thus:—

After deducting all expenses incurred both in realisation and in annual management and outgoings, the total sum of £6,340 was paid over to the owner during the first course of 16 years (1875-1890), being an average of £396 a year from the 152 acres, or 52s. an acre.

Beech was sold during this period at 2s. to 1s. 4d. a foot, and half-price for tops and small stuff.

During the last four years 1891-1894, the price had fallen to 1s. 3d. and 1s., and in consequence the net amount paid to the owner had been only £1,095, an average of £272 a year from the 152 acres, or about 36s. an acre.

In addition to the beech, a few oaks growing among them were cut each year for estate repairs—worth, perhaps about £25 a year.

The rates and taxes, included in the expenses given, had averaged about 1s. 6d. an acre, the woods being assessed at about 10s. an acre.

Something like 50 acres of woodland on this estate had been grubbed before it came under his firm's management, and the cleared land was now worth not much more than 5s. an acre, being always found inferior to the adjoining land.

HAWRIDGE COURT ESTATE.

Situate on the Chiltern Hills in the County of Buckingham.

Statement of timber, principally beech, felled in the woods situate in the parishes of Aston Clinton (St. Leonard's), Chesham, Great Missenden, Hawridge, and Wendover, extending for 20 years from 1875 to 1894. The whole area of the woods, 152 acres, is thinned once in sixteen years, the self-sown beech succeeding as a continuous crop. The prices realised by private contract during the period have been, per foot: beech, 6*d.* to 2*s.*; oak, 1*s.* 6*d.* to 2*s.* 6*d.*; ash, 1*s.* 6*d.* to 2*s.* 6*d.*; cherry, 1*s.* to 1*s.* 6*d.*; chestnut and sycamore, 1*s.* 6*d.* to 2*s.* 3*d.*

Year.	Acreage.			Name of Wood.	Gross amount realised.	Expenses of Realisation. Management.			Net amount paid to owner.
	A.	R.	P.		£ s. d.	£ s. d.	£ s. d.	£ s. d.	
1875	13	0	32	Bellows Grove	105 17 6	9 19 0			
	17	1	22		431 11 0	41 8 9			
					537 8 6	51 7 9	12 9 1	473 11 8	
1876	—	*		Grove	543 6 10	52 14 4	5 8 3	485 4 3	
1877	—			Grove	182 5 0	16 16 3	30 9 1	134 19 8	
1878	4	1	37	Three Ponds	*467 16 3	53 16 7	6 10 0	407 9 8	
1879	26	1	5	Brays	191 18 3				
	6	0	31	Ashen Grove	184 8 1				
	17	0	23	Stonehills	276 15 5				
					653 1 9	67 15 7	30 7 0	554 19 2	
1880	—			Brays	202 10 0				
				Stonehills	339 0 10				
					541 10 10	61 3 3	32 18 7	447 9 0	
1881	—			Brays	76 7 6				
	4	2	36	Gearys	48 6 0				
				Stonehills	427 11 5				
					552 4 11	61 16 0	24 9 4	465 19 7	
1882	—			Brays	213 2 9				
				Gearys	223 0 10				
	17	0	19	Widow's Croft	45 16 0				
	8	1	31	Crow's Foot	148 4 10				
				Stonehills	30 5 0				
					660 9 5	80 0 0	13 6 7	567 2 10	
1883	—			Brays	267 12 6				
				Widow's Croft	40 11 6				
				Crow's Foot	206 14 4				
					514 18 4	59 3 0	21 6 10	434 8 6	
1884	—			Brays	322 4 8				
				Widow's Croft	181 15 11				
				High Tree	52 2 3				
					556 2 10	74 2 1	30 18 9	451 2 0	
	114	3	36						

Year.	Acreage.			Name of Wood.	Gross amount realised.	Expenses of Realisation.		Expenses of Management.	Net amount paid to owner.
	A.	R.	P.		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1885	114	3	36	High Tree Widow's Croft	291 19 7				
	26	2	9		206 0 7				
					498 0 2	59 4 0	47 12 2	391 4 0	
1886	—			High Tree Widow's Croft Ashen Grove Lady Grove	244 6 6				
					90 5 0				
	10	2	20		92 0 3				
					9 5 5				
					435 17 2	58 4 6	24 6 3	353 6 5	
1887	—			High Tree Lady Grove	205 14 6				
					172 2 0				
					377 16 6	52 0 0	63 11 1	262 5 5	
1888	—			High Tree Lady Grove	222 15 0				
					239 11 4				
					462 6 4	64 6 0	29 14 1	368 6 3	
1889	—			Bellows	276 13 9	34 7 1	21 5 11	221 0 9	
1890	—			Bellows	386 0 6	44 17 10	19 11 0	321 11 8	
	152	0	25				Total £	6,340 0 10	
End of first period of 16 years, during which all woods were gone through, being a yearly average of £396 from the 152 acres, or 52s. an acre.									
1891	—			Grove	391 10 2	39 15 9	15 1 8	336 12 9	
1892	—			Grove Crow's Foot	1014 10 9				
					146 6 0				
					256 0 10	27 14 7	10 12 0	217 14 3	
1893	—			Grove Crow's Foot Brays	83 4 11				
					167 4 4				
					51 19 9				
					302 9 0	40 0 5	25 8 6	237 0 1	
1894	—			Brays Three Ponds	175 4 6				
					181 4 0				
					356 8 6	41 0 6	11 17 3	303 10 9	
Total of first 4 years of second period, being a yearly average of £272 from the 152 acres, or 36s. an acre.								£1,094 17 10	

As an illustration of the fall in price of beech in the second period, that in "Three Ponds" Wood in 1878 was sold at 1s. 9d. and 9d., and in 1894 at 1s. and 6d.

* A quantity of ash and Spanish chestnut was included in the fall of 1878, and sold at 2s. 3d.

The expenses of realisation include felling, fagotting, and commission on sales.

The expenses of management include hedging and ditching, trimming, road-mending, fencing, and occasionally some extra work not strictly chargeable to the woods.

THE CHAIRMAN asked what was the value of the woods in the first instance, and what was left at the end of the sixteen years.

MR. BROWN replied that there was no valuation made of the woods. They had got four years into the second course, and the quantity did not fall off very much; in fact, they anticipated keeping up about the same quantity of felling every year for the next sixteen years, and sixteen years after, but the price was different, and, therefore, the returns were a little lower. It had been asked whether an equal stock was left in the beech woods referred to, and he might say, in reply, that during his firm's management the owner (a tenant for life), to satisfy himself that he was not exceeding his legitimate right of cutting, called in an independent and thoroughly competent surveyor, who inspected the woods and reported entirely favourably on the course which was being pursued. His calculation took no account of the advantage which the owner got from the preservation of game.

DR. FARQUHARSON, M.P. (Visitor), said he had listened with great interest to the last speaker, who, he thought, supplied exactly what was wanted, viz., statistical details as to the actual expenditure, outgoings, and income of forestry. To use his own expressive phrase, "Would it pay?" must really be the text of any discussion on the subject.

He was himself a landowner, and had done a good deal of planting, but he was afraid he was not able to give any very definite details from his own experience, which, however, taught him that there were many difficulties in the way of landed proprietors who proposed going in for forestry. In the first place, it was, he thought, a misapprehension to suppose that any kind of land would do to plant trees upon.

The old idea of going about and "sticking in" trees had done a good deal of harm to the public mind. It was well known to experts that every particular kind of tree wanted a particular soil, and it was useless to plant trees in ground not capable of sustaining their growth.

There was another point, namely, the question of proper seed. He was sure that all who, like himself, had much to do with planting, must have deplored frequent failures to rear larches in Scotland and other parts. Nothing was more disappointing than to plant larches in a place practically well suited to them, and then to find, when they reached what, to borrow a term from animal physiology, might be called the period of puberty, that the well-known worm appeared, and the whole tree perished. He should like to know from Mr. CADELL whether this was due to bad seed, bad ground, bad planting, or bad climate. Those were important points. Parasites, of course, existed not only on trees, but on every form of animal life; and whether those parasites were the result of disease or the cause of disease, was a question on which many opinions had been expressed. It was one of the oldest of pathological problems, and if Mr. CADELL could tell tree planters to what this larch disease was due the information would be most useful.

Then bad prices were another important point. He had the honour of sitting on the Select Committee on Forestry, and he pressed every witness before that body whether it was not the case that the use of wood was shrinking all over the country. A large amount of timber used to be employed for the purpose of coal-props, but he understood that these were now largely made of iron, which he had no doubt was much better. Then, railway sleepers demanded a considerable amount of timber, but now that in India and elsewhere iron had been adopted for this purpose, there was little doubt the system would spread to this country.

Another fact which militated against the prospect of a fair return from timber was that builders knew well that they could get doors and window sashes, and all such things in connection with the woodwork of houses, much cheaper from abroad than at home. Why was this so? To a great extent it was owing to the very unsatisfactory condition of things to which Mr. CADELL has alluded in his Paper, namely, the question of railway rates. Facilities were given to foreigners which simply destroyed local industry.

Another very important point dealt with in the Paper was the question of the education of foresters. It was not every landowner who could afford to employ a forester at from £300 to £500 a year to look after his forest, but most had to be content with a man at £60 or £70, who would attend to the plantations in a fairly workmanlike but not very scientific fashion. What was wanted was the opportunity of getting a good practical education for such a man, but that was a great difficulty.

The result of the Forestry Commission had been mentioned. They made a very modest application to the Treasury for not more, he thought, than £500 a year, but they had never yet been able to get the slightest satisfaction, or any kind of assistance to advance the great national cause of forestry. He thought a discussion like the present, among a number of men educated in such matters, ought to tend to form and even to force public opinion. It was necessary to shew the body politic that there existed a strong opinion which demanded that something should be done for this great, important, and national industry, and if the result of that Meeting should be to bring some kind of reasonable, legitimate pressure to bear on the Legislature, and to shew that there were a not insignificant number of people who were determined that the forestry of the country, now so neglected, should receive distinct and reasonable

attention, he thought the Meeting would not have been held in vain.

He would like to ask Mr. CADELL—he was really asking for information, though, perhaps, his ignorance was inexcusable—if it was really true that natural-planted wood was better than that planted artificially? The Germans, who were so much ahead of us in this, and, he was sorry to say, in a great many other matters, had reduced forestry to something like a science, and they planted in quite a different way from ours. They did not, in fact, plant at all, but left all the planting to be done by nature. They planted a bit of wood, certainly, at the start, and afterwards cut it down in blocks as a regular harvest every year, and did not plant the remainder, but left it to be done by the natural seed production of the portion left. Their contention was that natural wood was better in quality than artificial wood.

He had also heard it often suggested that vermin or rabbits would not eat natural-planted wood. Gentlemen present laughed at that; but he could assure them that the truth of the idea was deeply implanted in the minds of ordinary foresters.

His next point was this. Tree planting must be a very good thing or a very bad thing. It cost a good deal of money, and the results were long in appearing. A great deal of bad land, unsuited for wood, was planted with wood, and good grouse land, which had borne an excellent reputation for sporting, was thus spoilt and rendered unremunerative by being converted into forest. A very poor woodland crop was the reward for having destroyed a valuable game crop. In these days, when farming was doing badly, and forestry was being talked of as a remedy, the question arose whether, even if it paid to plant land which was now rearing a good crop of grouse, or even deer,

it was advisable to grow poor trees in order to turn off the grouse and deer, which would pay, probably, a good deal better. These were all questions which he suggested for the attention of the author of the Paper. Every landed proprietor in Scotland was interested in forestry, and wanted to know how he could best make forestry pay.

Anyone who had the opportunity of going over the magnificent forest belonging to Lady SEAFIELD, would see that the science of forestry was not extinct even in Scotland. He thought even the Germans would be compelled to admit that the cultivation of trees in that great forest was scientific. He believed £3,000 a year used to be made regularly from the trees, although, of course, as the price of timber diminished, so did the returns.

It had been pointed out in the Paper that in a few years the inflation of foreign competition might diminish, and that there might arise a large demand for home-grown trees, and it would be foolish on the part of landed proprietors who could afford to start a forest not to do so, for in future they might reap a good harvest, and the trees which they were engaged in "sticking in" would grow when the planters had ceased to exist.

Dr. W. SCHLICH, C.I.E. (Visitor), said he hoped he might be allowed to offer his congratulations to Mr. CADELL on the marvellous energy which he had displayed in the matter of forestry. Mr. CADELL retired from the Indian service, he thought, some 25 years ago, but he was labouring still in the same cause.

There was one paragraph in the Paper which especially struck him. It ran, "Perhaps one of the greatest drawbacks to the inducement to plant is the absence of any accounts drawn up, *ab initio*, to shew the returns obtainable from outlay in planting." That statement had his

most hearty sympathy. Forestry in England suffered from the fact that there were so few records from which the returns derived from the business could be calculated. It was of no use to say, "In the course of 50 years I have cut "so much timber, which has brought in so much." It was necessary to know the quantity of timber removed, the particular time when it was removed, and the money realised therefrom, besides all items of expenditure. Only then was it possible to calculate whether the thing paid or not.

At page 317 a ledger account was given. The form of it was very well drawn up, but he would add that such an account must be kept separate for each wood, and that not only the money realised, but the amount and the class of timber and other produce, removed from that particular wood, must be recorded. If this were carried on for a number of years on an estate, the owner would then be in a position to calculate the financial return from his forestry, but not otherwise.

He would also refer to page 318, where it was said that a certain estate yielded £1,700 per annum, the area being 1,000 acres, which would represent about £1·7 per annum. Here he agreed with the Chairman, that such a statement did not help much, unless one knew the value at the beginning and the amount left at the end. It had been said the woods were left in a good condition, but such an estimate, without actual measurement, was treacherous. Even the best estimate might easily be 25 per cent., if not 50 per cent., out. To be of any use there must always be careful stocktaking at the beginning and at the end, for, if that were not done, the return derived from the lands might represent the actual increment, or it might represent partly increment and partly a certain quantity of capital drawn out of the estate.

He would not say anything about a most important question upon which he had intended to make some remarks—namely, railway rates—as the matter had already been referred to, except that it was most unfortunate that, in a free country, it should be possible for such conditions to exist. A man sending his produce from half-way between Dover and London to the Metropolis might have to pay more than others who sent theirs from, say, Calais.

He should like, if he were allowed, to give a few notes which might be of interest on the financial aspect of forestry. He had authority to mention the names and places to which they related, and his friend, Mr. FISHER, had already published them, he thought, in one of his numerous letters on the subject; but, perhaps, it would be as well to shortly repeat them. The information had been supplied to him by Colonel PEARSON, an old Indian forest official.

In New Radnorshire Sir HERBERT LEWIS had a larch wood of 200 acres, planted on an eastern slope, the elevation ranging from 750 to 1,200 feet above the sea. The land was a sheep walk, and was rated at the present moment at 4*s.* 6*d.* an acre rental value. That was planted by the former proprietor with larch, between 1835 and 1840, and was cut between the years 1883 and 1891, or a period of fifty-six years from the first planting to the last cutting, and during that time it had yielded a total income of £90 an acre, or an average of £1. 12*s.* 2*d.* per acre per annum throughout the fifty-six years. From the detailed information supplied to him by Colonel PEARSON he had calculated the annual rental which that land had given throughout the period. He had compared the return of £1 12*s.* 2*d.* with the expenditure given and had calculated at 3 per cent. compound interest throughout, which gave an annual net rental for the land of 11*s.* 1*d.* If it were calculated at 4 per cent. it gave a net rental of 6*s.* 8*d.* But Colonel PEARSON had also told

him that, in that particular locality, it was possible to borrow money on mortgage on land, say, for planting purposes, certainly at $3\frac{3}{4}$ per cent., or even a little cheaper, and, if the calculation were made on the basis of $3\frac{3}{4}$ per cent. compound interest, it would be found that the land had yielded about 8s. net rental treated as larch wood, as compared with 4s. 6d. as a sheep walk. This instance shewed that forestry could be made to pay in England, if the right kind of tree were planted in the right place.

He had also had some experience, on both sides of the Channel, with regard to the production of mining props, and he considered that, within 100 miles of a mining centre, land which could be obtained for about 8s. an acre a year could be profitably planted for that purpose. He was acquainted with an estate in Buckinghamshire, managed by a certain firm (he had not authority to give the name, but he got the information from the firm direct, and the particulars were guaranteed), where the estate had yielded from 32s. to 34s. per acre during the last 30 years. He had tried to make a calculation of the financial result of beech growing in Buckinghamshire, and he found that it would pay to grow beech in that district on land which could be rented for 10s. or less per acre. If the rental value of the land were calculated fairly, with compound interest, it was easy to see whether to plant it would pay or not.

His own opinion, briefly expressed, was that the better land in England would never pay as forest, but that land, ranging from middling downwards, would pay under certain conditions, and it was just this land that ought to be planted with timber. No one would think of planting land which brought 30s. or £2 an acre if used for any other purpose. There were something like 26,000,000 acres of waste land in the country, of which, perhaps, one-

fourth might be made available for forest in the course of 30 years (for it was not necessary or advisable to plant everything at once). Of course, for a certain number of years cattle and sheep must be kept out; but, afterwards, the land might be re-opened for grazing—only there must be a proper rotation. One-fourth or one-fifth must be shut up, and four-fifths left open for grazing.

Supposing it were shewn that it would pay under the conditions he had pointed out, the question still remained, What was to be done, how was it to be done, and who was to do it? Everyone suggested the State. The suggestion sounded very well, and was very convenient. It saved trouble and did not cost anything to the individual owner. It had been pointed out that on the Continent the State did these things. That was true, but not everywhere abroad. In the majority of cases on the Continent the State found the means because it was interested in the results, as the land belonged to it. He did not say that it was not the duty of the State in England to do so, but the interest of the State in the question was here a very small one. He did not think the State owned more than 100,000 acres of forest, while private proprietors owned about $2\frac{1}{2}$ millions. That being so, it was only fair that private owners should take their share in the necessary steps towards improvement, while the State might very well assist. It had done so to a small extent, and he thought the authorities were most willing to help further; but the private proprietors must also move.

Two or three months ago a suggestion was made to start a Forestry Society, to include landowners, agents, and timber merchants; but he thought that if The Surveyors' Institution would take the matter in hand it would fulfil the desired purpose just as well as any special society of the kind. When he was examined before the Com-

mittee on Forestry, Sir JOHN LUBBOCK asked him, "Suppose you had a private estate, and wanted to train a man to look after your woods, what would you do?" and his reply was that he should place him under a first-class English or Scotch wood manager to be trained. Still, at the same time, he thought that there were not at present enough qualified woodmen in this country to carry out large schemes of afforestation. Many were very good, but there were not a sufficient number of them, and, besides, a somewhat higher standard of training might now be aimed at. Not only should the principles of sylviculture be taught, but special attention should be paid to the preparation of marking-plans, so that a steady and sustained annual yield is secured. Only then would it be possible to develop a regular timber market, and to stimulate the growth of industries which require forest produce as their prime material.

If such a scheme were taken in hand the first requirement would be that some forests should be managed in a systematic manner to serve as samples. A beginning had been made at Cooper's Hill, on a piece of land of some 800 acres, on which there was a certain amount of growth, but for the first ten years all that could be done was to plant, and the land was really only fit for Scotch pine.

He understood that, probably, the Commissioners of Woods and Forests would not be unwilling to allow certain Crown lands to be managed according to a well-prepared systematic working plan, and he did not see why landed proprietors in England should not follow their example. In any case, the first *desideratum* was well-managed training grounds, where young men could go through an apprenticeship under a competent wood manager. Then, when they had served their apprenticeship, they might be sent for a period

to a technical school, where there would be provision made for instruction in forestry and the allied branches of science, and then required to undergo an examination in order to obtain a diploma. In that way, perhaps, might be provided a better and a larger supply of good woodmen. The cost of the education must be in proportion to the salary which men of that class could look forward to commanding.

It might be objected that this was rather an imaginary scheme, but it was not without a good precedent. In Moravia and Bohemia, for instance, would be found three forest schools kept up by societies of land proprietors. One was founded in 1852, one in 1855, and a third in 1874, and all three were flourishing. To one of these a forest of 3,000 acres, belonging to Count WALDSTEIN-WORTENBERG, was attached, managed by the teachers of forestry, and reserved as a teaching ground, and he did not see why a similar plan should not succeed in this country.

The extension of forestry had been talked of as the one remedy for agricultural depression. It could never be that, but it could be a very valuable help to agriculture generally, and his opinion was that the conditions at the present moment were not unfavourable for a vigorous effort in the direction of advocating its more systematic and scientific study, with a view to more extended planting and the introduction of more systematic marking.

MR. J. MAUGHAN (Professional Associate) said it had struck him as rather curious that the author of the Paper—a Scotsman—should not have mentioned the Duke of ATHOLE's larches, and he shared Mr. SQUAREY's disappointment in finding no reference to the Laird of DUMBIEDYKE's advice to his son.

Though the value of that advice had been somewhat

discredited by modern scientific men, it still seemed that those memorable words had brought about the planting of many millions of trees in Scotland, and, even if technically wrong, had done a good deal of good.

So far as land was concerned, it might be said that the present generation had seen three ages. First, take the corn age. As long as prices were remunerative, in some districts every acre was under tillage. When prices began to fall, then landowners "turned," as it was expressed in Yorkshire, "the green side up." The land was laid down to grass; but in many cases that was no longer profitable, and he thought that there had now dawned what he might call the timber age.

Some 20 years ago, Mr. BAILEY DENTON estimated that the landlord's outlay on farmsteads and buildings on farms of tillage and mixed husbandry was at the rate of £4 10s. to £6 an acre; and on mixed or dairy farms of from 200 to 500 acres, £7 per acre. Taking those figures, and charging 5 per cent. interest, which was only a reasonable rate on such an expenditure, they represented a perpetual charge on the land of from 4s. 6d. to 7s. per acre. Although materials were now cheaper than they were twenty years ago, labour was dearer, and the farmers' wants were very much greater, those figures might still be taken as being something like correct.

On those farms which had gone out of cultivation, he thought that in estimating all profits from forestry it was only right and fair to take the outlay on buildings into consideration, and also on fencing. If forestry were ever to be made to pay, the initial expenses must be reduced by planting larger areas, the cost of planting must be reduced, and the rabbits must be kept down.

Taking fencing first of all, he had a few figures before

him which would shew what a very important item this was. He had put the cost of fencing at 1s. a yard, not because it ought always to cost so much, but as being an easy figure to calculate, and as being approximately correct. He had taken the plantations as being in the form of a square. If one acre were planted it would cost £14 to enclose it, and to enclose 10 acres would cost 4 guineas an acre; 100 acres would cost 20s., but the enclosing of 500 acres would only cost 12s. 6d. an acre, and so on. He might instance an estate on which there were less than 800 acres under wood, but over 32 miles of fencing to keep up on account of the smallness of the enclosures. It was fatal to profitable forestry to be under such an expense as that. In his Paper, Mr. CADELL gave the cost of planting as £4 6s. an acre, but his other estimate of £8 an acre presumably included fencing. As Dr. SCHLICH had said, the cost must be estimated at the initial outlay at compound interest for the whole period of rotation on which the plantation was worked, and it was, he thought, practically impossible to spend £8 an acre and make it pay.

Taking an initial outlay of £8 an acre, at 3 per cent. compound interest, on a plantation worked on a rotation of 80 years, the cost would amount to £85 in round numbers at the end of that period; but taking it at the lower estimate of £4 6s. an acre, at the same rate of interest for the same number of years, it only came to £48.

Double-digging had been mentioned, by which he believed was meant what in Yorkshire was called trenching. He was afraid that was too expensive an operation, especially in a stony country, and although, probably, benefit might accrue to the trees during the earlier portion of their existence, he did not think that would be maintained throughout their life. It was well known that the physical

condition of the soil had far more to do with the production of timber than its mineral constituents, and the effect of the trenching in some soils would soon be lost.

With regard to the question of natural reproduction, he saw no reason why, in England, if rabbits were excluded, a considerable portion of the cost of planting should not be saved; but his experience led him to doubt the truth of Dr. FARQUHARSON'S theory, that rabbits did not touch self-sown trees. As long as the rabbits existed natural reproduction was impossible. He could instance a small plantation where there was as nice a lot of young sycamores coming up as a forester need wish to see, and not a penny of expense was incurred in forming that plantation, but the last storm and the rabbits had demolished them all, and there was nothing to be done but to replant.

He was himself a sportsman and would be very sorry to spoil any other man's sport, but he felt strongly that rabbits should be put down, for if they were encouraged no landowner was entitled to blame his forester for the result of their depredations.

He agreed with what General MICHAEL said in his letter on page 336. He thought that if land agents were well educated in forestry it was not necessary to have a skilled man, so to speak, in every wood. The one man at the head should be able to superintend the less competent, and look after those who were under him. He did not see how a forester, out of his 30s. or £2 a week, could possibly afford to undergo the course of training which some speakers thought necessary.

He could scarcely agree with Mr. CADELL as to his estimate of rateable value (page 315). As he understood it, it was the unimproved agricultural value of the land and had nothing to do with the land adjoining, or

with the timber on it. He was not speaking, of course, of coppice.

He thought Mr. CADELL had also over-estimated the value of thinnings. He wished he could sell spruce, of any age almost, as pit props. He had under his management a plantation which had been blown down, and for the timber of which, more than 15 years old, he would take 2*d.* a foot. He might be wrong, but he did not think the Board of Trade would allow spruce to be used as pit props.

With regard to the sporting rent, he should be very sorry to plant land with Scotch or spruce fir, or any other timber, where he could get a reasonable rent for it for grouse shooting or for a deer forest. Sporting rents, so far as his experience went, were certainly going up, while it was impossible to sell Scotch fir at a profit. He had himself a lot of timber to sell at the present time—mixed larch and Scotch fir—but the timber merchants were willing to buy the larch, but would not take the Scotch fir. He was afraid that, owing to the terrible larch disease, the chance of growing it profitably was much reduced. He would advocate planting at wider intervals, say 5 feet to 6 feet, for nothing was more fatal to the fungus or disease spores than free currents of air.

Mr. E. WASON, M.P. (Visitor), said that, with reference to Doctor FARQUHARSON's remarks as to the folly of planting good heath land with trees, and thus doing away with grouse in order to get a less and more precarious rent, he might remind him that there was other game in the world besides grouse, and that black game, for instance, could not do without a certain amount of cover. It must always be remembered that, so far as planting was concerned,

there was not only the intrinsic value of the timber to consider, but the shelter it gave for agricultural purposes, and also its sporting value.

So far as his experience went, it was not worth while planting Scotch, Spruce, or Silver, for any purpose excepting for ornament or cover. To give one instance, he might mention that in 1883 he, as trustee of his father's estate in South Ayrshire, sold it to the Hon. HUGH ELLIOTT, the timber being valued at a very considerable sum, and the purchase-money was no sooner paid than the terrible gale of 1883 came, and the whole of those woods were swept down. If it had taken place now he did not believe he could have got anyone to take the timber away; but timber was at a little better price then, and the purchaser did get a few hundred pounds, but he believed not so many hundreds as thousands that had been paid for it.

Having sold that property he bought another on which were a good many trees, many of which were blown down. He thought the best thing to do was to get a saw mill and have the larch and the spruce sawn up. He obtained the use of a saw mill at a price of £30 odd, including the wages of a man and two boys. A neighbour wrote to him making an offer to buy the sawn timber, which had cost him £35 to cut up, to say nothing of hauling and so on, for the large sum of £12 5s. 6d. At the present time he had about 80 good Scotch spruce which he was chopping up for firewood, as he could not get them taken away.

He remembered that once, when crossing the Atlantic, he came across a Yankee returning from this country, who belonged to the firm of Messrs. PULLMAN, the railway carriage builders, and had been over here buying timber. He said that, although the finest timber was to be got here,

he was disappointed with the country altogether, for he found that there were two things which it was impossible to buy—the judges, and the oaks in Windsor Forest.

If one took into account the amenity and shelter afforded by planting, and the possible profit, and if proper trees were planted on proper land, he would venture to say there should be a distinct profit shewn, but it was of no use to plant on bad land. He had seen hill-sides where, 15 years ago, larch grew splendidly, and the owner thought there would be a good fortune for his son, but where now there was not one sound tree left. He did not know the reason; they got to a certain point, and then withered away.

Mr. STAFFORD HOWARD (Visitor) said he had come to listen and to learn something from the expressed views of experts, for, holding the official position he did, he was exceedingly interested in this question. As a matter of fact the proportion which the woods under the charge of the Commissioners bore to the whole of the property under their charge was a very small one, but he certainly found the question of forestry one of the most interesting with which he had to deal.

A previous speaker had mentioned the name of an old Indian forester (Col. PEARSON), in connection with the scheme of planting in Wales. He remembered a conversation with that gentleman, during which he had expressed an opinion that, with regard to forestry, it was not possible to lay down absolute rules, for it was a science which could be mastered only by observation. With regard to the particular instance which Dr. SCHLICH quoted, no doubt Sir HERBERT LEWIS made a very good profit out of that particular plantation. He saw the site of it, which was eminently suited to the purpose of growing

larch, and more than that, it had a railway station practically close to the plantation, which made a great difference in getting the timber away. But, in the same valley, within half a mile, the same Col. PEARSON shewed him another plantation of an exactly opposite character. It was planted more recently, it was true, and was planted probably because of the success of the other plantation, but it had not succeeded, and the reason Col. PEARSON gave was that, in his opinion, the aspect was too much towards the S.W. The prevailing winds coming through the valley, which was narrow, were too strong at some times, and at other times the trees did not get air enough. It, however, shewed conclusively that, although it was easy to find excellent results from planting, yet, within half a mile of a successful instance, there might be an example of unsuccessful forestry just as striking. And this shewed him that Col. PEARSON was right in saying, "Do not let anyone attempt to lay down a general rule; it is a science that comes by observation; you must learn it as you go along in the district."

A good deal had been said of late about planting, and an appeal had been made to the State to do it, but, as had been said by previous speakers, it was not a thing to go into without very great care indeed, and without very cautiously looking at and facing all the difficulties likely to be met with. He could not believe that the many acres of waste land on which planting was proposed were suitable. He did not think it would pay or would be wise, even from the point of view of those who were anxious to employ labour, thus to use any land which might pay better if cultivated when, as he believed, times would improve. Mention had been made of land which had gone out of cultivation. He wanted to know where it was. One heard of a patch here

and there, but not of any large areas suitable for planting, even in Essex.

Experiments in planting had been made by a previous Commissioner in the Isle of Man, of which it was, perhaps, premature to predict the success, for the plantations were too young. A plantation had been made on the top of an exposed hill, in, perhaps, the windiest place it was possible to find. A little piece of land was purchased from an adjoining field in order to run the fence straight, and he never saw a finer growth of trees for their age than on that little bit of 5 acres. But on a poorer class of land near by most of the trees were an absolute failure, shewing that where the land was a little better the trees were able to overcome the difficulties of the climate.

Many difficulties had been referred to as standing in the way of successful tree-growing, but there were one or two which had not been mentioned. The Isle of Man, for instance, was a land of tourists (who liked poking about in places where they were not wanted), who smoked, and lit matches, and threw them about, and who were therefore constantly causing fires, which exposed the people to frequent alarm and caused considerable damage. Even the railways, which did not much help by reducing their rates, were sometimes a serious drawback to planting, from the danger of fires caused by them. He read an account of a trial the other day where a landlord brought an action against a Railway Company for a fire, and the Railway Company won the day. He thought they would soon have to insure their forests.

As had been mentioned, when a very severe gale blew down many trees, the forest income was practically lost. As to rabbits, his experience was that it was not only the fact of their eating the wood, but that to get rid of them

required almost an education. His father gave his tenants the right to catch rabbits; but one of his tenants, who arranged with the keeper to kill them, thought that the latter was making too much out of this, and decided he would kill the rabbits himself. He did so, and after some time he was asked what success he had, and owned that he did not make much out of it. He lacked, said the keeper, three things—time, tools, and talent. To deal with any large number of rabbits required such an outlay as would interfere seriously with the profits of planting.

He had pointed out what seemed to him to be some of the difficulties of the case. He agreed with Dr. SCHLICH as to the systematic treatment of woods, and he should like to see established, in the interests of forestry, a better training in systematic work. If it could be associated with his (the speaker's) Department he should be glad to give what assistance he could; but landlords themselves were the most interested in this matter, and they might well come forward and help to give the opportunity for such systematic instruction as might assist young men in learning the management of land and woods.

Professor MARSHALL WARD (Visitor) said he had noticed that one part of the subject had naturally been especially discussed, before this Meeting of the Institution, namely, the financial position and prospects of forestry. To that part of the subject he was afraid he could contribute very little; but, as a teacher of some experience in matters of forest-botany, his duties had brought him much in contact with the practical side of forestry. It was of no use in this Meeting to talk about only the theoretical progress of science, but he believed it would be found that it was as

true of forestry as of the many other arts in which so much advance has of late years been made, that, if thoroughly practical, hard-working men had the opportunity of learning the scientific principles of forestry, they would avail themselves of it.

It was necessary for science and practice to work hand in hand, and he was glad to see that The Surveyors' Institution, in establishing a museum for the assistance and education of its Students, had taken an important step in the direction of recognising this fact. It was at present but a small collection, but would form an extremely good nucleus for a much larger and more comprehensive museum.

One of the Commissioners of Woods and Forests had just remarked that forestry was dependent on observation, but the opportunities for observation were not within the reach of every would-be student of forestry, and every added facility must be valuable. An instance had been given of two forests, one at one end of the valley and the other at the other end of the same valley, the one doing well and the other not flourishing. Now, were there substantial reasons for this or not? Of course there were, and, that being so, how were the causes to be discovered? What were the reasons for the failure on the one side and the success on the other? The only way to discover them was, by "observation." Our foresters and students must be taught what to look for, and what had been found by experience, and trained to find out the reason for things. This was not a matter of theory *versus* practice at all. It was a matter simply of systematic practice.

He believed he was right in saying that on the Continent insurance against forest fires was already carried out, and could not see why such a system should not be established here.

He had hoped, if time had allowed it, to say a few words about some of the diseases of trees and their effects on our forestry, and to deal more particularly with the larch disease, for which, complicated as it was, there were definite reasons. Had those who 50 years ago planted larch at considerable cost known what was now known, they would certainly have foreseen much of the loss which had resulted, and would have avoided it. The larch on the Alps suffered from that disease in certain places, and, when the growing season came on, the fungus which caused the disease ripened a sufficient number of spores to infect the trees around. It was a struggle for existence, and the larch won under certain circumstances of environment, where the conditions favoured the fungus less than they did the tree.

Professor G. E. S. BOULGER (Associate) said that, since 1876, he had done what he could to promote the study of forestry, which, in the aspect under which the Paper viewed it, was, no doubt, a matter of *£. s. d.* He did not think his friend Professor CURTIS would obtain much support for the view expressed in his letter, that forestry should be done from a sense of philanthropy or duty, and not for profit. He was afraid the age of chivalry in these matters was past, and, unless owners were shewn that it would pay, there would not be much planting. He was more sanguine than many of the previous speakers. If the advice given by Mr. SHAW, at the last Meeting, were observed, and planting were begun at the bottom of the hill and continued upwards, he was hopeful that a considerable portion of Dartmoor, for instance, might be afforested. The fine woods on the east side of the moor, in the neighbourhood of Buckland, could be extended over a certain part of the moor. It must

be remembered that there was there a soil consisting of decomposed granite of considerable depth, and, if the obstacle of exposure could be removed, it was possible to plant considerably there. It had been done to some extent at Lidford, on the west side of the moor. A wish had been expressed by Mr. STAFFORD HOWARD to hear of instances of land which had gone out of cultivation and was suitable for planting. If he meant to include beech-planting, he would find plenty of land on the borders of Wiltshire and North Hants which would bear beech, but the difficulty there was that, while beech paid well in the Chiltern district, where it was near the market and where there existed industries that required its use, it could not be grown to advantage in other localities.

If some of the large owners of such land would set to work to establish such industries, there would, no doubt, be a suitable market.

He was a little amused to hear Mr. MAUGHAN say he would accept 2*d.* a foot for his spruce, for some owners whom he knew of did not expect nearly so much. He had learned from Mr. WEBSTER (who was not present) that the average price of Scotch fir last year ranged from a maximum of 4*d.* to a minimum of 1½*d.* It was impossible to plant at a profit if timber was to be sold at that rate.

A large area of land under the control of the Commissioners of Woods and Forests, where he should like to see more extensive planting carried out, was that composing the New Forest. He visited it, in company with some members of the Scottish Arboricultural Society, two years ago, and the Scottish foresters groaned at the sight of the bare plain between Beaulieu and Brockenhurst. It was, of course, not good land; but, then, none of the

New Forest was good land, and yet, growing on that same bad land, were oaks which were the admiration of foreigners. The rough method of planting formerly adopted was not even so good as that experiment in planting of which Mr. SQUAREY spoke at the last Meeting. He recognised the fact that there were great difficulties in the case of the New Forest, for the Act of Parliament under which it was worked was, he thought, absolutely unworkable. One of the great difficulties was the influence of public opinion. There was a very common opinion, which often found public utterance with regard to the New Forest and Epping Forest and such lands, that it was the right way to preserve woodland to keep the trees standing. That was the way to destroy woodland; but if it were desired to preserve a forest there must be a succession of trees to replace the old by new. But directly that course was adopted there was a cry that the forest was being done away with, and that was one of the difficulties which all managers of Crown or public lands had to meet. He should be very sorry to see any economy exercised in the initial cost by diminishing the number of trees planted, for that was quite contrary to the teachings of the forestal science of the present day. All over Europe, planting more closely was now advocated in preference to planting far apart. There was one point to which, in spite of what Dr. SCHLICH said, he desired to refer, and that was in reference to Gen. MICHAEL's letter. He quite thought with him that this was a matter in which the State, though it was not expected to do everything, might well be expected to set an example, and that there would be a great advantage in following a policy which was never reversed. That had not been the case, of course, in the management of the New Forest, which was changed, say, every twenty years; but

if there was to be a permanent policy of forest management he thought the example ought to be set by the State and followed by large proprietors. It was very well to talk about the large amount of land in the hands of private proprietors; but it should be remembered that the amount in the hands of any one proprietor in England was comparatively small, and very often much scattered. That was a great difficulty with regard to management; but he could not think that Mr. STAFFORD HOWARD would have far to seek to find a great deal of land out of cultivation and yet fit for planting.

He did not quite agree with Mr. CADELL as to planting only indigenous species. Larch was not indigenous to any part of Great Britain, nor was Scotch fir in the South.

By what rule was the profit to be estimated? Was timber likely to fall lower in price, or had it reached the bottom price, or was there likely to be a rise? It seemed to him that many of the more sanguine speakers comforted themselves by a belief in a rise in the price of timber, owing to its greater scarcity. He was in North Russia lately, and when travelling through the magnificent forests—as magnificent as those of Germany—he thought the time when Russia would cease to supply us with timber was very remote. At present the Russian timber was grossly squandered. There was no system of management, and on passing the frontier between Germany and Russia the difference was most remarkable; but those Russian forests formed a source of supply which seemed to be for Europe what the natural forests of California, Oregon, and Columbia were to North America.

THE CHAIRMAN, in summing up the discussion, said he did not think that any speaker, with, perhaps, one exception,

had touched on what he might call the true system of Forestry in this country. Nearly all the speakers who had taken part in the discussion had only dealt with the subject of planting. But there was surely plenty to do in this country in conserving and preserving the natural woods, which were now wasted in a most disgraceful manner. All over the country one found instances in which they were badly managed, and natural reproduction was not taken into account at all. He had studied forestry and woodcraft all his life, and had taken a great interest in his own and other people's timber, and he had found, during an experience extending over 40 years, that woodland well managed paid well, more especially if attention were paid to conserving the natural reproduction. He considered that planting ought to be done under proper supervision and under expert advice, and that State aid might well be given, for there could be no return to the landowner for 10 years. The State might well lend money for such purposes at a low rate of interest, and defer payment of the interest for, say, 10 years. He was also of opinion that rates and taxes—rates, at all events—should be excused for 10 years, and then it would be found that, although the cost were charged with compound interest, planting, even at £8 an acre, would pay; and he appealed to the gentlemen present who represented the Legislature, to do what they could to get some short Act passed somewhat to that effect. The Forestry Museum of the Institution had been mentioned. He had taken much interest in it, as also had Mr. CADELL, and it was greatly to be hoped that by the co-operation of Members a collection would be formed which would be useful not only to students but to practical foresters.

The Institution was not an educational institution; it was

simply an examining body; but it was most desirable that every facility should be given to students to see the results of older men's practice, and learn from the museum what experienced foresters had learned before them. A special examination in Forestry was held by the Institution, and he, as a humble Member of the Examining body, thought that when a student could obtain the special Forestry Certificate of the Institution, he might be considered to be well qualified as a forester. A question had been asked as to rabbits attacking planted trees, and it was certainly the case that if an ash were planted it was attacked the first night, while the ash plants in the woods were left untouched. He had been told that some chemical action resulted, in the bark of a plant, from removal.

Reference had been made to the beech woods of Buckinghamshire. He was concerned in the case of *Dashwood v. Magniac*, and remembered that it was sought to find how long the 1,000 acres in question had paid £1,700 a year. He personally examined the forestry books, which had been wonderfully well kept for nearly a century. He went back to the year 1798, and found that from that time the income from that 1,000 acres had been between £1,500 and £2,000 a year. It was possible that the trees had been cut rather hard during the last few years, but there was, he felt sure, as much as £1,500 a year left. It must, however, be remembered that West Wycombe was a special locality, where there was a demand, and where beech timber when cut reached the merchants' hands within a mile or so. He might mention that the price per foot had nearly doubled in the 90 years, but the result showed what natural reproduction could effect.

A previous speaker had said that in rating woodland

no regard should be had to the adjoining land, but he could not agree with that remark. The only way in which it was possible to estimate the value of the land was by reference to the land adjoining, for the Rating Act of 1874 said :—" If " land is used only for a plantation or a wood the value " shall be estimated as if the land instead of being a planta- " tion or wood were let and occupied in its natural and un- " improved state."

He felt very much pleasure in being in a position to convey to Mr. CADELL the thanks of the Members for his very excellent Paper, which, he was quite sure, would rank among the most useful in the " Transactions."

Mr. CADELL, in reply, said he could not presume to pose as a referee upon all subjects forestal, as some speakers had wished him to do. But he would answer, as far as time permitted, the questions which had been put during the discussion with regard to finance. The cost of fencing alone would shew an enormous difference as between a small area and a large area. Professor SOMERVILLE, in his Paper read at the Imperial Institute on December 13th, 1894, said :—" Assuming that woods are farmed in squares " and that fencing costs 6*d.* per lineal yard, it will be found " that the cost of enclosing a single acre of woodland will be " about £7, while it will cost £2 4*s.* for ten acres, 14*s.* for " 100 acres, and only 4*s.* 6*d.* per acre for 1,000 acres." That shewed the large saving which could be effected on the one item of fencing by dealing with large areas instead of small, and the same applied to the cost of plants, especially where plants were reared in the owner's nursery and not bought from the nurseryman, who, of course, must charge his profit.

There was one remark of a previous speaker to which he

should like to refer. He had said that he would never use silver or spruce fir for fencing, but he (Mr. CADELL) happened to know of a case where great success had been attained by the use of naphthalin—the refuse of paraffin—for preserving what were called in Scotland the “stobs” or posts. It cost practically nothing, and the result appeared to be that almost all timbers were rendered equally hard. At any rate, he had seen a trial made with wood of different kinds with the same preparation and with a successful result, at a cost of about 1*d.* per post.

One remark of Sir HUGH BEEVOR’s, at the last Meeting, should not be overlooked. It referred to the employment which forestry would provide for labour in the winter season. It was rather assumed that wood would give little or no employment. That question had been gone into by a competent authority, who calculated that, “without taking into account the treatment of the timber and saw-mills, wood-pulp factories, bobbin works, &c., we thus arrive at the conclusion that forestry is capable of affording remunerative employment to about 20 times as many operators as pastoral farming.” It was mostly with pastoral farms that one had to deal now, when arable farms were proving so unremunerative, and he had endeavoured to take the text which Mr. SQUAREY had said that he should take, and to say what was really wanted for the profitable management of land, and the “sticking in” of trees.

The following Resolution was moved and seconded, and unanimously agreed to by the Meeting :—

“RESOLVED—

“That, in the opinion of this Meeting, it is highly
“desirable that something should be done

“ to carry out the carefully considered and
“ valuable recommendations of the Select
“ Committee on Forestry which have, so far,
“ been practically ignored.”

The Meeting then adjourned.

PAPER ON VILLAGE WATER SUPPLIES.

BY R. E. MIDDLETON (FELLOW).

*Read at the Ordinary General Meeting of THE SURVEYORS'
INSTITUTION, Monday, May 13th, 1895.*

DANIEL WATNEY (VICE-PRESIDENT) IN THE CHAIR.

THOUGH much has been done towards supplying small towns, villages, and country houses with water of good quality and sufficient in quantity, there are many places where none of these conditions, so necessary to health, are fulfilled.

The institution of district and parish councils, under the Local Government Acts of 1894, is calculated to stimulate public opinion and to promote hygienic reform, with a consequently enhanced attention to the provision of adequate supplies of pure water in all places, however small, where its want is felt, to the most effectual means for getting rid of refuse matter without polluting our rivers, streams, and springs thereby, and to increased cleanliness generally, whereby the essence of healthy living shall be secured; and it shall not be considered sufficient to make clean the outside of the cup and platter, but the inside shall be made and kept clean also. It is hoped that the following remarks may be of assistance to those who are desirous of obtaining efficient supplies of pure water, and who need sound scientific guidance to guard them from, and the ratepayers from entering upon, futile and ill-digested schemes.

We who live in this great city of London, and have only to turn on a tap in order to be supplied with as much water as we require, and that of excellent quality, who grumble if provision be not made in our houses for the supply of both hot and cold water to every floor at least, whose only knowledge of scarcity is derived from that experienced during a sharp and long continued frost, when we may be obliged, for a few days, to carry all the water used in the household from a stand-pipe situated a few hundred feet distant, or from the more serious drought occasioned by the bursting of a main; we, I say, can have no conception to what straits the inhabitants of country districts are put in times of drought in order to obtain this necessary of life, what a very limited quantity is found to be sufficient for household purposes under such conditions, and what an exorbitant price has to be paid for this very insufficient quantity.

In dry seasons water has frequently to be carted for long distances, and doled out by the bucketful at a charge of from 1*d.* to 4*d.* for a bucket, holding at the most 4 gallons. Thus the community has to pay at a rate varying from £1. 0*s.* 10*d.* to £4. 3*s.* 4*d.* per 1,000 gallons for what could be supplied by almost any waterworks for 1*s.*, and could in many cases be obtained, delivered in the house, for half this price.

Naturally, under these circumstances, the quantity of water used is reduced to the smallest practicable amount; but even under these conditions the expense is onerous in the extreme, and the cottager, who, if supplied with water from a waterworks, would receive and use, say, 250 gallons per week at a cost of 2*d.*, is reduced to limiting himself to, say, 36 gallons per week, for which he has to pay from 9*d.* to 3*s.* Ordinary cleanliness, either in person, in culinary utensils, or in surroundings, is impossible with this quantity

of water. Any system of water-borne sewerage is out of the question, and if it is in existence as an apparatus it must become a serious source of danger to health. In times of serious drought, when the water has to be carted and becomes very scarce, the inhabitants of the places affected are driven to economise the user in every possible way, not only because of the expense attendant on the use of water, but because the water is not obtainable beyond a given quantity, either from lack of carriage or from limited supply.

When this is the case, any water, however stagnant and polluted, is used for the washing both of the person and of culinary utensils, and thus a very serious danger is introduced; for lack of care in cleansing plates and dishes, and especially of vessels used for the conservation of milk or fatty substances, is, as is now well known, a fruitful source of propagation of disease.

In the above description I am not drawing on my imagination; I have had frequent opportunities for noting the ill effects of drought, both at home and abroad, and have had to suffer both in comfort and in pocket from this cause. On one occasion I was a member of a community numbering some 4,000, whose water supply failed utterly for the space of three months. The only spring within reasonable distance was quite inadequate to supply the required quantity of water for even a few hundreds; the carting of it, if it had been procurable, was impossible, and the supply had to be brought daily by steamer a distance of nine miles, and doled out at so much per bucket. The result which followed the natural restriction of the use of pure water, which, even if no charge had been made, would have still been reduced to the uttermost, as every drop had to be carried a considerable distance by hand, was that a very serious epidemic followed.

Unfortunately, in some respects, these times of drought are not of sufficient duration to oblige the sufferers to take immediate steps to remedy them. They take and pay for their dole of water and grumble excessively, but they do nothing, only hoping that the rain will come soon, and that they will then have plenty of water. When the rain comes their sufferings are forgotten, the expense they have been put to is also forgotten, the money has been paid and cannot be got back again, and any schemes which may have been proposed for the introduction of a permanent supply are shelved, and, though they may be brought out again when the next scarcity occurs, it is only to be again put on one side when the rain comes again.

One great reason why villages are so frequently without proper water supply is because the inhabitants fear the expense of obtaining it; they know that it will cost them something—how much they have no idea, nor have they any means of comparing the cost and labour to themselves of drawing the water from deep wells or of carrying it laboriously in buckets from springs, streams, or ponds, with the very small charge which would be necessitated by the provision of an adequate supply brought to their doors, if not into their houses.

In many cases, in agricultural districts, even this small charge is more than the labourer is inclined to disburse, and he prefers to give his labour, which apparently costs him nothing, to paying even the 2*d.* to 3*d.* per week, which would afford him and his family a sufficient supply and would save his labour, or more probably that of his family. Another reason why supplies are not instituted is because there is no one in the place of sufficient public spirit or possessed of the influence necessary to initiate the scheme and to pay the preliminary expenses of an inquiry, and, finally, should inquiry be made and a scheme be adopted

the cost of it appears to be prohibitive, and no one can be found to form a small water company or to pay the requisite cost on the strength of agreements to take water, all the more that, in all probability, at least two-thirds of the population will at the commencement refuse to take any water from the company, though, should the supply be obtained, they will be eager to take advantage of it.

There can, I think, be no doubt that the cheapest way in which any village can be supplied with water is by the construction of the works by the proprietor, the largest land-owner, or by a small company, the water supplied being charged for by agreement. Under these conditions the cost can be reduced to the lowest limits, by restricting the supply to the quantity which experience shews to be adequate, whereby the capacity of the whole of the machinery, the dimensions of the supply mains, of the services, of the reservoirs and pumps (in case of a pumping supply), and of the area of supply in any case, can be reduced to a minimum. In many of the poorer parts of large towns the actual consumption, after allowing for a good deal of waste, is at the rate of 6 gallons per head per diem, and in agricultural districts a supply at the rate of 10 gallons per head per diem, for domestic purposes only, should be ample.

Under the Public Health Act of 1875 a rural sanitary authority can apply to the Local Government Board to borrow money for the purposes of water supply. Should this course be adopted, the scheme will have to be sanctioned by the Local Government Board, after examination by one of their inspectors. It is practically certain that a supply at the rate of 15 gallons per head per diem will be insisted on, thereby increasing the capacity and probably the cost of the works by one half, and many

details, such as the use of a minimum diameter in the mains of three inches, of reservoirs of a given capacity and of a certain construction, would be considered requisite, all of which will add to the cost, which is further supplemented by the charges made for the holding of the inquiry and for the obtaining of the loan.

Viewed from the standpoint of a Government department, the requirements of the Local Government Board are necessary and judicious, but they must frequently be the means of turning the scale against the adoption of a supply which, if undertaken by private enterprise, could be obtained so much more cheaply, even though, in the long run, the efficiency might be somewhat less.

It is impossible to give any guide as to what system of water supply is to be preferred, or will be found to be the cheapest. Each case must be considered on its own merits, and the engineer must consider both the hygienic and the economical bearings of each separate form of supply before deciding which to recommend for adoption.

A few remarks may, however, be of service in illustrating what are the different sources of supply, what are the advantages and disadvantages of each, what considerations should guide the selection, and what is the approximate cost of works of this character.

Gravitation works. It may be stated broadly that, on financial grounds, gravitation schemes are to be preferred to any arrangement where pumping has to be resorted to in order to raise the water to the requisite level. They are also to be preferred on account of their simplicity, the small cost of maintenance, and the small amount of attention which it is necessary to give them in order to keep them in working order, and, therefore, the low charge for wages; but this statement must be accepted as a general one only, as there are many cases where the cost of collecting and retaining the

water and the length of the pipe track causes a gravitation supply to be an exceedingly expensive one.

On hygienic grounds, gravitation supplies, unless where the water is drawn directly from springs, are apt to be unsatisfactory owing to their liability to present or future pollution from the presence of habitations on or near the sources of supply. Even in hilly districts, where habitations are few and scattered, pollutions from the droppings of cattle, when their number is large in comparison with the amount of water passing down the stream, although they may not produce disease when filter beds intervene between the source of supply and its delivery, are yet undesirable, while in cases where no subsiding reservoir or filter bed intervenes between the stream and the delivery the objection becomes much more serious, for the actual droppings themselves may be passed into the service pipes, as well as fish and the spawn of fish and frogs, &c., and vegetable matter, either fresh or in a state of decomposition.

If a subsiding reservoir and filter beds be introduced in the course of the stream, the primary cost of the works and the maintenance charges will be very largely increased, and it will be necessary to provide constant and intelligent supervision, for filters cannot be properly worked by rule of thumb: nor can they be allowed to manage themselves, and an element of cost in the shape of salary is introduced, which, if capitalised, will probably render the scheme almost prohibitive.

Streams of the character referred to are, generally speaking, of a very fluctuating character, and, unless great care be taken in obtaining evidence as to their dry weather flow, the whole scheme may be rendered abortive by the failure of the supply in times of drought, while the danger of injury to health from pollution is largely increased.

Even supplies drawn direct from springs must not be accepted without careful examination, unless the source from which the water is derived can be clearly traced and is above suspicion. For instance, in limestone districts, springs are often the outlets for underground streams the water from which passes through fissures in the rock, from sources which may possibly be polluted, and issues in an unfiltered condition and may be highly contaminated.

Shallow wells are open to the same objections, namely, that they may be situated on a drainage area which is liable to be contaminated by cesspits and farmyard refuse, and such wells must not be relied on for supplies without careful examination.

Deep wells, of whatever description, may generally be trusted to afford an uncontaminated supply, but their cost is great, and the quantity of water to be obtained from them is frequently uncertain. The cost of sinking a well increases very rapidly when a certain depth is exceeded.

Tube wells are cheaper than sunk wells, but in cases where the water will not rise to the surface or near to it by gravitation and the pumps cannot be placed in a sunk well above the level of the top of the tube from which the water issues under pressure, the pump having to be introduced into the tube itself, is limited in capacity by the size of the tube, which for the sake of economy is made of the smallest possible dimensions. The water lifted can, therefore, be but small in quantity in comparison with the cost, and, should the pump fail, as it must do after a time by natural wear, if not sooner by accident, the supply is stopped and cannot be renewed until the pump is replaced, a matter of time and expense, in a tube where the pump is much below the level of the top.

Where pumping is resorted to for supply, the pumps and the rest of the machinery should be in duplicate, or reservoir

capacity should be introduced which shall afford at least ten days' supply, during the consumption of which the pumps or machinery which has got out of order may be repaired and replaced.

The simplest and cheapest form of pump is that known as the hydraulic ram; it can be actuated by water obtained from a polluted source while pumping pure water from a well or spring; thus the quantity of pure water required and used may be reduced to a minimum. Its construction is simple, and it does not easily get out of order. The hydraulic ram will not, however, deliver water to a greater height than twenty-five times the fall of the actuating supply, and it is not generally used for greater lifts than 150 feet. The efficiency of the apparatus is not great; but this is of little consequence provided the supply of water is ample, while if it be not ample to keep the apparatus in full work at all times it is inapplicable.

Another simple apparatus is that of a water-wheel or turbine, driving pumps for forcing the water to be used for household purposes into a tank, for delivery by gravitation. In this case impure water may be used for actuating the wheel, the pumps being supplied from a pure supply—a well, a spring, or other source.

A third appliance is a windmill actuating pumps. This machine is, of course, most efficient when placed in an exposed position, but at the best of times it is uncertain and intermittent, and must be made of excessive power, equal to pumping the whole of a day's supply in one-fourth of that time, and it is necessary to provide storage room for at least four times the quantity which it would be requisite to give under other and continuous conditions of working.

All these forms of apparatus require little attention so long as they are not allowed to get seriously out of repair. The charge for supervision is, therefore, a small one com-

paratively. It is a most important one in all small supplies, whether for villages or single mansions.

Pumps driven by horse-power are only applicable where horses are already in use, and where a man and horse can be detailed for pumping purposes during otherwise idle hours, or during idle hours with a small addition of overtime. If a man and horse have to be used expressly for the purpose of pumping it will be cheaper, under most conditions of working, to use some other form of apparatus.

It is thought that for small supplies steam power will not afford satisfactory economical results, not because of any difficulty in providing an economical machine, but because the time occupied in lighting fires and drawing them, and in getting up steam, forms so large a proportion of the whole, that the charge for unremunerative labour is excessive. It may be said that tubular or tubulous boilers can be supplied, by the use of which, steam can be generated in a few minutes, but, though this is undoubtedly true, I do not think any engineer would recommend the use of such boilers for continuous work; they are liable to leak, and they require more attention than the man in charge of a small waterworks is likely to give them.

Steam boilers of whatever construction require an amount of intelligent supervision, for their safe and economical working, which they are not likely to receive under the conditions stated, and it is believed that the use of oil or gas engines is to be preferred. These engines can be started and stopped at almost a minute's notice, and they cost nothing while they are standing idle, except on capital account, while the whole time of the driver can be employed remuneratively.

It is exceedingly difficult to draw any reliable comparison between the different forms of machinery enumerated, but I have prepared a short tabular statement shewing

the probable cost of a plant to pump a given quantity of water to a given height, on each of the systems mentioned. The figures are necessarily based, in many instances, on estimates, both of the cost of the machinery and foundations and of the fuel used, and they cannot be relied on as being absolutely accurate, for they will necessarily be affected by different conditions of working; but they are relatively correct.

The accompanying list of 75 small water supplies, with an average population of 3,663 per supply, shews the average capital cost per head to be £1 8s. 0 $\frac{3}{4}$ d., the maximum and minimum being £4 7s. and 3s. 7 $\frac{1}{4}$ d. respectively, both figures being exceptional.

If the supplies obtained by pumping be separated from the rest, their number is found to be 31, the average population per supply is 4,454, and the average cost per head for works is £1 10s. 5 $\frac{1}{4}$ d., and it is shewn that the average cost of a pumping supply is not very materially higher than for a gravitation scheme. It must, however, be remembered that, where pumping is resorted to, a further charge has to be made for the cost of lifting the water and for additional labour, which is not required in a gravitation scheme, and that such charge will probably amount, when capitalised, to 4s. 9d. per head of population, and the average capitalised cost of a pumping supply will thus be raised from £1 10s. 5 $\frac{1}{4}$ d. to £1 15s. 2 $\frac{1}{4}$ d. per head.

If the supplies for populations below 3,000 be selected from the above as being more nearly representative of the class of work under consideration under the title of Village Water Supplies, the figures are, for all the supplies, 30 in number, whether they be gravitation, pumping, or partly gravitation and partly pumping, £1 8s. 11 $\frac{3}{4}$ d. per head of population, while the pumping supplies cost £1 13s. 7 $\frac{3}{4}$ d. per head, or when the capitalised cost of working the

machinery is added, £1 18s. 4½*d.*, and it appears that in very small waterworks the cost of supply, where pumping has to be resorted to, is largely in excess of that where the water can be distributed by gravitation.

The quantity of water delivered per head of population is largely divergent, the highest amount recorded being 77 gallons per head, a quantity greatly in excess of ordinary requirements, while the lowest is 3 gallons per head, an allowance proportionally as much below what is requisite as the other is above what is needed. The average supply is at the rate of 24·6 gallons per head per diem.

In the pumping supplies the quantity of water delivered is slightly more regular than in the case of gravitation supplies, but even in these the variation is between 34½ gallons and 3 gallons, the average allowance being 19·9 gallons, a fairly reasonable quantity in country districts.

The average cost of a waterworks may thus be taken at 30s. per head of population, and the yearly charge, at 7 per cent. for interest and sinking fund, comes to 25·2*d.*, or, allowing five persons to a house, 10s. 6*d.* per house per annum. Section 62 of the Public Health Act, 1875, empowers a local authority to compel the owner of a house to supply that house with water at such rates as may be in force in the district (if there is a local Act in force), or, should there be no local Act, at such rate not exceeding 2*d.* per week, or such rate as the Local Government Board may consider reasonable. A charge of 2*d.* per week, on the above basis of calculation, amounts to 8s. 8*d.* per annum. Thus, if a village consists entirely of cottage property, or property charged at this rate, it is impossible for the requisite yearly expenditure, to meet the cost of the works, to be found, and the highest expenditure per head of population which could be provided for from this source is £1 4s. 9½*d.* per head.

No provision is made in this estimate for repairs and

management, which must be added to the yearly charge to be provided for, and which will probably amount to from 1s. to 2s. per head, or from 5s. to 10s. per house per annum, and the difference, or 28·4*d.* per head per annum, must be provided for out of the rates or by contributions from property of higher value.

Section 9 of the Public Health (Water) Act, 1878, provides that where a rural sanitary authority have provided a stand pipe they may receive water rates or rents from the owner or occupier of every dwelling house within 200 feet of any such stand pipe, provided that, if the house be already supplied with water, no water rate or rent shall be recoverable unless the water from the stand pipe is used by inmates of the house.

Under Section 8 of the same Act the Local Government Board shall, on the application of a local authority, fix what is a reasonable scale of charges to make for the supply of water.

It may be interesting to note what is the probable capital cost per head for machinery, management, and maintenance for the different forms of plant mentioned in this Paper and with different volumes of supply, these figures having a marked bearing on a question which will be dealt with elsewhere, namely, the desirability, from an economical point of view, of the amalgamation of districts for purposes of supply.

TABULATED STATEMENT.

Probable capital cost of reservoirs, mains, pumping machinery, &c., per head of population under different systems of pumping, and for populations of 500, 1,000, and 2,000 persons, including management:—

HYDRAULIC RAM.

	A. Population of 500 costs per head.			B. Population of 1,000 costs per head.			C. Population of 2,000 costs per head.		
	£	s.	d.	£	s.	d.	£	s.	d.
A. Cost of reservoir to hold 3 days' supply	0	3	7·2	0	3	7·2	0	3	7·2
B. Cost of mains, sluice-valves, hydrants, &c. ...	0	12	6·0	0	9	0·0	0	6	0·0
C. Cost of rising-main ...	0	1	5·7	0	1	0·0	0	0	7·4
D. Cost of ram, shed, and foundations	0	2	0·0	0	1	2·6	0	0	8·6
E. Cost of management at £20 per annum, capitalised at 7 %	0	11	5·1	0	5	8·5	0	2	10·2
Total capital cost per head ...	£1	11	0·0	£1	0	6·3	£0	13	9·4
Cost per head per annum for interest and sinking fund at 7 %	0	1	4·4	0	1	0·4	0	0	9·2
For management and repairs	0	1	0·0	0	0	6·3	0	0	3·3
	£0	2	4·4	£0	1	6·7	£0	1	0·5

The machinery estimated for is not in duplicate, and the reservoir is therefore made to hold 3 days' supply ; were the machinery in duplicate a reservoir to hold one day's supply would be sufficient. It appears to be more economical in all cases to duplicate the machinery than to increase the size of the reservoir, and especially is this the case as the quantity of water to be supplied increases.

WATER WHEEL.

	A. Population of 500 costs per head.			B. Population of 1,000 costs per head.			C. Population of 2,000 costs per head.		
	£	s.	d.	£	s.	d.	£	s.	d.
A. Cost of reservoir to hold 3 days' supply	0	3	7·2	0	3	7·2	0	3	7·2
B. Cost of mains, sluice-valves, hydrants, &c. ...	0	12	6·0	0	9	0·0	0	6	0·0
C. Cost of rising-main ...	0	1	5·7	0	1	0·0	0	0	7·4
D. Cost of wheel and fitting it up, pumps, and sheds for pumps	0	3	7·2	0	1	10·3	0	1	2·3
E. Cost of management at £20 per annum, capitalised at 7 %	0	11	5·1	0	5	8·5	0	2	10·2
Total capital cost per head ...	£1	12	7·2	£1	1	2·0	£0	14	3·1
Cost per head per annum for interest and sinking fund at 7 %	0	1	5·8	0	1	1·0	0	0	9·7
For management and repairs	0	1	1·9	0	0	7·0	0	0	3·8
	£0	2	7·7	£0	1	8	£0	1	1·5

The machinery estimated for is not in duplicate, and the reservoir is therefore made to hold 3 days' supply; were the machinery in duplicate a reservoir to hold one day's supply would be sufficient. It appears to be more economical to duplicate the machinery for a population of 1,000 and upwards than to build the larger reservoir.

WINDMILL.

	A. Population of 500 costs per head.	B. Population of 1,000 costs per head.	C. Population of 2,000 costs per head.
	£ s. d.	£ s. d.	£ s. d.
A. Cost of reservoir to hold 10 days' supply	0 12 0·0	0 12 0·0	0 9 0·0
B. Cost of mains, sluice- valves, hydrants, &c. ..	0 12 6·0	0 9 0·0	0 6 0·0
C. Cost of rising main ...	0 1 5·7	0 1 0·0	0 0 7·4
D. Cost of mill, stand, and pumps	0 4 9·3	0 3 0·1	0 2 1·0
E. Cost of management at £30 per annum, capi- talised at 7 %	0 17 1·7	0 8 6·9	0 4 3·4
Total capital cost per head ...	£2 7 10·7	£1 13 7	£1 1 11·8
Cost per head per annum for interest and sinking fund at 7 %	0 2 1·8	0 1 9·0	0 1 2·8
For management and repairs	0 1 9·2	0 0 11·5	0 0 6·6
	£0 3 11·0	£0 2 8·5	£0 1 9·4

Some authorities consider that with windmill-pumping it is necessary to provide 30 days' storage to meet the fluctuations in wind pressure, while others advocate 14 days' supply under favourable conditions, that is to say, in places which are fairly exposed. In this estimate 10 days' storage is provided for, but the machinery is made of sufficient power to pump the whole of a day's supply in 8 hours, and thus to make the most of short puffs and eddies of wind, and it is believed that, under ordinary conditions, this estimate is sufficient. The machinery is not in duplicate.

GAS ENGINE.

		A.	B.	C.
		Population of 500 costs per head.	Population of 1,000 costs per head.	Population of 2,000 costs per head.
		£ s. d.	£ s. d.	£ s. d.
A.	Cost of reservoir to hold 3 days' supply	0 3 7·2	0 3 7·2	0 3 7·2
B.	Cost of mains, sluice- valves, hydrants, &c. ...	0 12 6·0	0 9 0·0	0 6 0·0
C.	Cost of rising-main ...	0 1 5·7	0 1 0·0	0 0 7·4
D.	Cost of engine, shed and foundations, pumps, suction pipes, &c. ...	0 5 2·0	0 2 8·4	0 1 4·6
E.	Cottage at £200	0 8 0·0	0 4 0·0	0 2 0·0
F.	Cost of management at £50 per annum, capi- talised at 7 %	1 8 6·8	0 14 3·4	0 7 1·7
Total capital cost per head ...		£2 19 3·7	£1 14 7	£1 0 8·5
Gas at 3s. per 1,000 c. ft.	Cost per head per an- num for interest and sinking fund at 7 %	0 2 1·8	0 1 5·2	0 0 11·4
	For management and repairs	0 2 4·9	0 1 2·6	0 0 7·3
	Cost of gas per head per annum at 3s. ...	0 0 5·2	0 0 5·2	0 0 3·9
		£0 4 11·9	£0 3 1·0	£0 1 10·6
Gas at 4s. per 1,000 c. ft.	Cost per head per an- num for interest and sinking fund at 7 %	0 2 1·8	0 1 5·2	0 0 11·4
	For management and repairs	0 2 4·9	0 1 2·6	0 0 7·3
	Cost of gas per head per annum at 4s. ...	0 0 7·0	0 0 7·0	0 0 5·3
		£0 5 1·7	£0 3 2·8	£0 2 0·0

The machinery is not in duplicate, and the reservoir is therefore intended to hold 3 days' supply; and within the limits of size indicated above it is more economical to use the larger reservoir than to duplicate the machinery.

OIL ENGINE.

		A.	B.	C.
		Population of 500 costs per head.	Population of 1,000 costs per head.	Population of 2,000 costs per head.
		£ s. d.	£ s. d.	£ s. d.
A.	Cost of reservoir to hold 3 days' supply	0 3 7·2	0 3 7·2	0 3 7·2
B.	Cost of mains, sluice- valves, hydrants, &c. ...	0 12 6·0	0 9 0·0	0 6 0·0
C.	Cost of rising-main ...	0 1 5·7	0 1 0·0	0 0 7·4
D.	Cost of engine, shed and foundations, pumps, suction pipes, &c. ...	0 6 3·8	0 3 3·4	0 1 10·9
E.	Cottage at £200	0 8 0·0	0 4 0·0	0 2 0·0
	Cost of management at £50 per annum, capi- talised at 7 %	1 8 6·8	0 14 3·4	0 7 1·7
Total capital cost per head ...		£3 0 5·5	£1 15 2·0	£1 1 3·2
Oil at 5d. per gall.	Cost per head per an- num for interest and sinking fund at 7 %	0 2 2·8	0 1 5·5	0 0 11·8
	For management and repairs	0 2 6·0	0 1 3·1	0 0 7·8
	Cost of oil per head per annum at 5d.	0 0 3·4	0 0 2·8	0 0 2·3
		£0 5 0·2	£0 2 11·4	£0 1 9·9
Oil at 6d. per gall.	Cost per head per an- num for interest and sinking fund at 7 %	0 2 2·8	0 1 5·5	0 0 11·8
	For management and repairs	0 2 6·0	0 1 3·1	0 0 7·8
	Cost of oil per head per annum at 6d.	0 0 4·1	0 0 3·4	0 0 2·7
		£0 5 0·9	£0 3 0·0	£0 1 10·3

The machinery, &c., same as for gas engine.

From the figures tabulated above it is seen that the most economical system, judging simply from the figures as they stand and which are liable to alteration with varying conditions, is that of the hydraulic ram, and that the other systems follow in the order of precedence, with the exception

of the oil engine, which appears to be slightly more economical than where gas is used. Too much emphasis must not, however, be placed on this estimated advantage, which may easily be reversed.

From these figures it appears that the machinery requisite for a supply of 5,000 gallons daily costs nearly as much as that for supplying 20,000 gallons per diem, and that the relative cost of pumping the smaller quantity is greater than for the larger supply, while the charge for the working of the machinery is identical, for one man can manage a pumping plant equal to the delivery of 100,000 gallons daily as easily as he can that for 5,000 gallons, and his wages can be but fractionally higher in the former than in the latter case. In this respect it may be suggested for consideration whether it be not better, especially in the case of very small supplies, to provide pumping machinery of sufficient power to do two days' work in one day. By this means Sunday pumping is avoided, and the same man who drives the machine can, on the alternate days, devote his time to seeing that the pipes, stand pipes, taps, &c., are in proper order, and to collecting rates, one man being able to undertake the whole management of the works at a considerable saving in cost and, probably, with increased efficiency in working.

Put into a few words, the desiderata in a water supply may be summed up as follows:—

Primarily, the source of supply must not be contaminated in the present, and must not be liable to contamination in the future to such an extent that all danger of an outbreak of disease cannot be removed by *sand* filtration; it must be ample for the purposes of the district as well in dry seasons as in wet ones; that is to say, it shall afford a supply for domestic purposes only, apart from what may be required for watering gardens, for washing vehicles, for farm and

stable purposes, and for fire, at the rate of ten gallons per head per diem, at least.

Secondly, that the storage capacity shall be sufficient to provide at least one day's supply in cases where there are duplicate engines and pumps, and three days' supply where single engines and pumps are employed.

Thirdly, that the engines and pumps shall be easily handled and managed, that where in duplicate, either engine can drive either set of pumps, that they shall be of ample power, and that the water ways and rising mains shall be of ample capacity.

Fourthly, that the mains be sufficiently large without being of too great size, and shall be so arranged that there are no blank ends in which stagnant water can collect, but shall be connected in circuits, by which means the sizes of the mains can be reduced, as the water can travel in two directions to one point, and so designed that the circuit can be shut off for repairs with the least amount of inconvenience to the users.

Finally, that, where practicable, areas of water supply shall be aggregated so that the dimension of the supply may be such as can be worked by the most economical machinery (very small machines are not economical) under the management of one competent person, the saving effected being in the economical working of the machinery, in the reduction in the cost of buildings (those required for a supply of 100,000 gallons being little larger or more costly than those required to supply 20,000 gallons), and in the adaptation of the work to the capacity of the *employé*, who has to manage the undertaking so that his wages charge shall form as small an item in the account as possible.

There is another and very important consideration bearing on the same question which must not be lost sight of, namely, that, in order to secure a safe, adequate, efficient,

and economical supply of water, the services of a really competent engineer are required—one who will devote considerable time and attention to securing the best possible supply in all respects, and will see that the details of his scheme are of the first order and are properly carried out, and no engineer who answers to this description can give his services except for an adequate remuneration, and, the work to be done being little greater in the one case than in the other, this will form a considerable item in the cost of the small supply, while it will be a small matter as regards the larger one. Again, by aggregating districts, a much better supply can generally be found which will be suitable for all, while, if the places be treated as units, only one can use this source of supply, and the others may be in great straits to obtain water at all, and may have to pay very heavily for it.

It does not appear that either the County or District Councils have, or will have, powers under the Local Government Act of 1894 to oblige different parishes to combine for purposes of water supply, and it is, perhaps, inadvisable that such compulsory powers should be in these hands, for neither counties, districts, nor parishes are arranged with any special regard to watershed, the unit which will frequently determine the area which should be supplied from one source; but it may be suggested that the Local Government Board should be provided with power to compel areas to combine for purposes of water supply where it can be shewn that it is in the public interest that they should do so.

The question of areas of collection of water for the purposes of supply is one which requires careful consideration, for in many cases expense and disappointment have resulted from the endeavour on the part of a district, which has stood in urgent need of a water supply, to appropriate the

natural drainage area of another district, not perhaps, in the same urgent need of water, but which could not stand tamely by and see the water in which it had an interest diverted to other areas ; while, on the other hand, those to whom an area naturally belonged have, in some cases, allowed their source of supply to be appropriated, and have found, when too late, that they had nowhere to go to in order to supply their own wants.

It may, no doubt, be taken as a general axiom that no town has the right to take the water which would form the supply of another town above it on the same course, without affording a supply to that town, should it desire to avail itself of it ; but the town may not be in a position to avail itself of the offer at that time, and when it would, later on, gladly obtain a supply of water from the mains of the town below, it can no longer do so, because the mains are only large enough for the supply of the town which has obtained the supply, and it would be manifestly unfair that the lower town should be burdened with the cost of collecting a larger quantity of water than is required for its own purposes, and laying mains of larger capacity than it wants, on the chance of a future demand from intervening towns. It is not always to the advantage of a locality to draw its supply from the highest source, for the intervening town may be of small population, and be able to utilise a local supply which would be useless to the larger but lower town, and to do this at a cheaper rate than it would have to pay to the owners of the larger supply.

In the case of a village it is desirable, especially when the water has to be stored or pumped, to limit the quantity consumed as much as possible, provided always that sufficient be given to ensure the possibility of thorough cleanliness both of house and person, and to this end it is sufficient to provide standpipes, or street fountains, from which water

can be drawn, and which must be situated not farther than 200 feet from any house which is to be rated for such supply.

It is essential that the fountains shall be self-closing, that they shall not leak and waste water, and that they shall not freeze, and these conditions are not easily complied with. Where a sufficient pressure is provided in the mains it is desirable that fire hydrants should be placed at frequent intervals, and standpipes, hose, reel, and nozzles be supplied and kept in a convenient place for fire purposes; but if these appliances be introduced it is requisite that the mains should be of larger diameter than may be necessary for the ordinary requirements of the village, the smallest size applicable being 3 inches in diameter.

It is not usual to include house connections in the contract for water supply, because, in most instances, the number required cannot be estimated beforehand, as many occupiers will refuse to accept connection until the supply is instituted.

Where possible, it is most desirable that these connections should be included in the contract, and should be made as the mains are laid, so as to save reopening and filling and consequent disturbance in the surface of the street or road; they are usually $\frac{3}{4}$ -inch in diameter, and of lead or wrought-iron pipe, according to the quality of the water used and the nature of the soil.

In the supply of large isolated dwellings the conditions are somewhat different from those which govern a village water supply. The quantity of water provided should be almost unlimited, and if fire appliances are attached to the supply, as they should be, it must be quite out of proportion to the domestic requirements of the house, as must be the dimensions of the mains, which cannot be less than three inches in diameter, and should preferably be four inches.

The law has always guarded water rights with the utmost care, and it does not allow of any interference with a stream or lake, either by a body corporate or by private individuals, to the prejudice of those who have acquired a right to use the water for domestic or manufacturing purposes. It has become a question whether the rights of the community and of the individual to a proper supply of water for domestic purposes are not frequently sacrificed to the acquired rights of manufacturers for commercial purposes, and whether the time has not arrived (especially considering how small the value of water as a source of power has become in this country, consequent on the cheapness of coal, the fluctuating character of the water supply, and the greater regularity in the amount of work obtainable by the use of steam, gas, or oil engines) when compensation for water rights might be considered on a new basis. Communities might be allowed to take the water they require for domestic purposes in priority to the mill-owner, and not after him as at present, on supplying him with power of another description, of equal capacity to that which he loses.

When large storage reservoirs have been constructed for the purposes of supplying towns with water, the mill-owners have frequently benefited to a large extent by the equalisation of the supply, the owners of the reservoir being bound to pass out of it as compensation water such a proportion of the average flow as may be decided on (probably one-third) at all times, thus increasing the dry-weather flow, while, when there is an excess of water, they can impound it in their reservoir until it is full, and thereby reduce the amount of flood water during the winter. This is a double advantage, for in most water-mills it is as injurious to have too much water as too little, and the wheel is as little able to work in excessive floods, when the tail

water is backed up, as in dry weather, when there is an insufficient supply.

With regard to underground water, the law appears to be that there is no priority of right in it unless its source can be clearly defined; thus the right in an underground stream passing through a defined fissure in the rock could be as clearly asserted as if it were on the surface, while, if there were no defined watercourse, but the water percolates through numberless minute fissures, no such claim can be maintained.

I have endeavoured to shew that water supplies are urgently needed in many country districts, that the greatest care and skill is required in selecting proper supplies and in preparing the design and details of the work, and that serious inconvenience and loss is frequently occasioned by neglect of these elementary precautions; that in order to reduce the cost of the supplies per head of the population aggregation of districts is frequently desirable, and that in order to avoid jealousies and rivalries it is advisable that the Local Government Board should have powers to enforce aggregation when it is desirable on public grounds; that with a supply of reasonable dimensions the cost of the works, of the distribution of the water, and of its conservation need not be excessive, but is well within the means of even poor and country districts. Finally, I would insist that cleanliness is next to godliness, that it is a necessity of health, that observance of it has materially reduced the incidence of disease and death in this country, and if persevered in it will still further reduce these enemies of mankind, and thereby enrich the country generally and the dwellers in it. I trust that the newly-formed County, District, and Parish Councils will do their duty in providing efficient supplies of pure water for their constituents, and will also extend their energies to all other sanitary matters,

and will insist on thorough drainage and thorough cleanliness in all directions.

	Total cost.	Cost per head.			Gallons per head per day.	Distribution of water.	Source of supply.
	£	£	s.	d.			
1	200	0	3	7 $\frac{1}{2}$	Not specified	Gravitation	Spring and private pumps
2	1,187	0	5	10	5	Not specified	Springs
3	2,029	0	9	1 $\frac{1}{2}$	36	Not specified	Springs
4	2,277	0	11	11 $\frac{3}{4}$	6 $\frac{1}{2}$	Not specified	Springs
5	2,750	0	12	2 $\frac{1}{2}$	3 $\frac{1}{4}$	Not specified	From another supply
6	3,133	0	12	9 $\frac{1}{4}$	3	Pumping	From shaft
7	3,500	0	13	1 $\frac{1}{2}$	37	Not specified	Springs and wells
8	2,800	0	13	7 $\frac{1}{2}$	Not specified	Gravitation	Springs
9	4,000	0	13	10	13 $\frac{1}{2}$	Pumping	Artesian well
10	2,000	0	13	10 $\frac{1}{4}$	10	Not specified	Springs
11	2,600	0	14	0 $\frac{1}{2}$	8	Pumping	Springs and well
12	1,200	0	14	1 $\frac{1}{3}$	11 $\frac{1}{4}$	Gravitation	Spring
13	1,992	0	14	8	4	Not specified	From another supply
14	3,172	0	14	8 $\frac{1}{4}$	5 $\frac{3}{4}$	Pumping	From another supply
15	3,500	0	16	4 $\frac{1}{2}$	23 $\frac{1}{2}$	Not specified	Spring and rivulet
16	4,150	0	16	9 $\frac{1}{2}$	13 $\frac{1}{2}$	Not specified	Spring
17	4,500	0	17	0	9	Pumping	Wells
18	1,800	0	17	3 $\frac{1}{4}$	18	Gravitation	Springs
19	5,000	0	17	6	18 $\frac{1}{2}$	Pumping	Well and bed of sand
20	2,700	0	17	9 $\frac{1}{4}$	5	Pumping	Spring
21	6,000	0	17	10 $\frac{3}{4}$	55	Partly gravitation and partly pumping	Well and part gravitation
22	1,770	0	18	7 $\frac{1}{2}$	53	Not specified	Springs
23	1,000	0	19	0 $\frac{1}{2}$	Not specified	Pumping	Springs and wells
24	600	0	19	11 $\frac{1}{4}$	6	Not specified	Springs
25	3,549	1	0	1 $\frac{1}{4}$	Not specified	Not specified	Brook
26	2,152	1	0	2 $\frac{1}{2}$	14	Not specified	From another supply
27	700	1	0	7 $\frac{1}{2}$	Not specified	Gravitation	Springs
28	5,000	1	0	9	21	Pumping	Artesian well in chalk
29	5,000	1	0	9 $\frac{1}{4}$	41 $\frac{1}{2}$	Gravitation	Springs
30	1,700	1	1	3	14 $\frac{1}{4}$	Not specified	Springs and River Erno
31	3,100	1	1	4 $\frac{1}{2}$	8 $\frac{1}{2}$	Not specified	From another supply
32	13,000	1	1	8	Not specified	Pumping	Springs
33	5,000	1	2	1 $\frac{1}{2}$	33	Not specified	Springs and wells
34	4,708	1	2	2 $\frac{1}{4}$	10 $\frac{1}{2}$	Pumping and gravitation	Springs and well
35	4,000	1	2	10 $\frac{1}{2}$	5	Not specified	From another supply
36	5,550	1	4	8	15 $\frac{1}{2}$	Pumping	Wells
37	1,400	1	5	2	Not specified	Not specified	Stream
38	5,500	1	7	6	29	Pumping	Well
39	5,000	1	7	6	Not specified	Pumping	Spring
40	6,600	1	8	1	64	Not specified	Springs and small stream
41	1,500	1	8	3 $\frac{1}{4}$	18 $\frac{1}{2}$	Not specified	Springs

	Total cost.	Cost per head.	Gallons per head per day.	Distribution of water.	Source of supply.
	£	£ s. d.			
42	4,300	1 8 8	Not specified	Not specified	Artesian bored tube well
43	2,000	1 9 1½	14½	Pumping	Well
44	5,000	1 9 5	73	Gravitation	Springs from green-sand
45	4,500	1 9 11¼	37½	Not specified	Springs
46	10,500	1 10 0	Not specified	Not specified	A chamber in the water-bearing beds of oolitic formation
47	3,015	1 10 1½	Not specified	Not specified	Spring
48	6,000	1 10 2	25	Not specified	From another supply
49	3,250	1 10 4	Not specified	Pumping	Well
50	1,800	1 10 9	25½	Not specified	From another supply
51	17,300	1 11 5	27	Pumping	Well
52	8,200	1 11 6¼	17	Pumping	Well
53	5,872	1 11 6¼	10¾	Gravitation	Perennial springs
54	3,400	1 14 0	Not specified	Pumping	Spring
55	3,550	1 14 0	Not specified	Gravitation	Rainfall, and collected by mains into two reservoirs
56	3,212	1 14 3¼	34½	Pumping	Well
57	7,040	1 14 4	5½	Pumping	Well
58	3,200	1 15 6½	14	Not specified	Springs
59	7,921	1 18 0½	Not specified	Pumping	Well
60	9,000	1 18 6¼	30	Pumping	Spring
61	3,900	1 19 0	25	Not specified	Spring
62	6,800	2 0 0½	29	Not specified	Springs
63	10,157	2 0 8	34	Pumping	Well
64	1,150	2 1 1	Not specified	Gravitation	Spring
65	21,000	2 2 0	18	Gravitation	Brook and perforated pipe adits
66	2,530	2 2 2	16½	Not specified	Well
67	9,100	2 3 4	30	Not specified	Spring
68	6,000	2 3 7¼	6	Not specified	Well
69	11,500	2 6 0	20	Not specified	Stream, springs, and surface water
70	12,000	2 12 2	Not specified	Pumping	Well spring
71	15,000	2 14 1	43	Pumping	Well
72	5,450	2 14 6	4½	Pumping	Well
73	7,000	3 1 3¾	22	Not specified	Springs
74	12,519	3 2 7	32	Pumping	Spring
75	15,000	4 7 0	8¾	Pumping	From another supply

Professor H. ROBINSON (Fellow) said he was sure that he had the feeling of the Meeting with him in proposing a hearty vote of thanks to Mr. MIDDLETON for having contributed to the "Transactions" of the Institution a Paper

containing so much valuable information and such carefully-worked-out statistics.

The Paper traversed so wide a range of subjects that it was impossible to discuss all its details, and on these, and particularly those contained in the Tables, he did not propose to touch, for he was sure no one was more competent than Mr. MIDDLETON to deal with such matters.

One or two broad points he would venture to comment upon, not by way of criticising Mr. MIDDLETON'S Paper, but, if possible, if he might be allowed to say so, of supplementing it.

Systems of village supply were dealt with by the author broadly under two heads, viz., gravitation and pumping. He seemed to prefer the gravitation system, but some small communities, such as those dealt with in the Paper, might be almost compelled to obtain an underground supply from the immediate neighbourhood, and pumping might be the only method of getting a sufficient supply. Where individual villages could not obtain such a supply within a reasonable distance, a gravitation scheme would have to be resorted to; but, generally speaking, that system was the more expensive. He agreed with Mr. MIDDLETON that, if it were possible to secure co-operation, and if the different villages would combine, then gravitation would be less difficult.

He called to mind one district consisting of various villages that was in a most deplorable condition as regards water. The supply was not only inadequate, but was polluted. In some parts of the district the ditches were, in fact, the only source of supply, and in summer even these failed. The rateable value of the district was not adequate to the expense of carrying out any efficient scheme, but some of the large landowners took the right view of the position and of their responsibilities, and obtained from Parliament

power to carry out a gravitation scheme for procuring water from a distant point, and supplying a large area of country containing a considerable number of villages. This co-operation enabled a pure supply of water to be obtained and distributed at reasonable cost, which would not have been the case had each village had an independent supply.

The pollution of water under a gravitation scheme to which the author referred, was not, he thought, only from the cattle droppings, but to a still more serious degree, in the case of arable land, from the manuring of the land. Floods carried away a large quantity of water highly charged with organic pollution, and of course injurious to health.

He would refer to one question which was of especial public interest, and that was in reference to watersheds. The older Members of the Institution would remember that about 20 years ago there was a conference at the Society of Arts with reference to that question. Its importance was now even more emphasised when the demands on the available sources of water supply were becoming larger and larger, and it was plainly evident that every effort should be made to conserve the water that came from the watersheds during the maximum rainfall. A large quantity was now lost; and not only lost, but allowed to do enormous injury. It was confidently supposed and hoped, 20 years ago, that one Government or another would before now have taken the question up.

He might add another suggestion with reference to the importance, from a national point of view, of conserving our surplus waters and utilising them for irrigation purposes. This was, perhaps, going a little outside the bounds of the subject as treated in the Paper, but he thought the point should be kept in mind in considering any scheme of rural water supply. This had been done systematically abroad when villages were laid out for the purpose of establishing farms and

cultivating the land in small plots. One well-known case was that of Salt Lake City, the great success of which was due entirely to the statesmanlike view taken of the way in which land to be utilised for cultivation should be treated. The water was conserved in such a way that all the allotments had the advantage of a plentiful supply. He thought that, in dealing with the great question of the future of the land of this country, the question of irrigation should be kept in mind.

The author had referred to the well-known legal trouble as to the right in underground water. The old case of *Chasemore v. Richards* was fatal to any claim for compensation, but he might mention that, by the use of lithia, underground water could be identified which could not be identified by any other method. He was engaged in a case where water travelling underground had been distinctly identified by means of lithia, so that the case of *Chasemore v. Richards* need no longer be regarded as a bugbear, as identity admitted of being established. The fact was also of some interest from a scientific point of view.

Mr. R. W. PEREGRINE BIRCH (Associate) said he had much pleasure in seconding the vote of thanks to Mr. MIDDLETON, than whom there was, perhaps, no one in London more familiar with the particular subject under discussion, and certainly no one more capable of putting its economic and practical aspects into the shape of such a Paper as that which he had read to the Meeting.

He did not propose to make any remarks of a critical nature, but he had a few things to ask and a few to suggest. The Paper referred to the want of public spirit that prevented water companies being now started, but he thought that the want of public spirit might better be called prudence, when one considered what was threatened to those

speculators who many years ago started water companies. They went without their dividends almost for generations, and now when it was found they had done their work so well, and the works were so well suited to their purpose, it was suggested that their undertakings should be bought up for old iron by those who want to use them. He thought that was one difficulty, and a very natural one, in the way of raising capital for the suggested rural waterworks.

He quite agreed with the author that a supply of six gallons or ten gallons per head was sufficient for village communities; but it was necessary to convince the public of that, and it was of no use for engineers who wanted to start waterworks to insist on the fact. The only people who would be listened to were local surveyors and medical officers, who would agree that, out of 20 gallons or 30 gallons per head used in villages, 15 or 20 gallons were wasted, or, worse still, thrown away by means of leaky service pipes and fittings under the foundations and floors of the houses, causing not only extra expense, but great injury to health.

With respect to the size of the pipes, he doubted whether there was much to be saved, in the initial cost of waterworks, by having smaller cast-iron pipes than 3 inches. With a smaller pipe, say 2 inches, there were three joints to make instead of two, and, as the digging cost just as much, the saving was extremely small; whereas the carrying capacity would be doubled by employing a 3-inch pipe. He had no doubt, generally speaking, that a gravitation scheme was more economical than pumping; but he thought that, in small schemes, gravitation was comparatively more objectionable than in larger schemes, and he should rather, in the case of a small village supply, advocate pumping from a deep source because of the difficulty and uncertainty attending filtration on a small scale. It was possible, in some cases, while obtaining water from a deep source, to

deliver it by gravitation to the village. He remembered a case in which he was consulted, and where sufficient water was obtained, from below 20 feet of clay at an altitude that commanded the top of a mansion without any pumping. He knew well that it was not always possible to go through the clay and get the water which was required, and, in such cases, deep pumping was the best method of procedure, but he should hesitate to advise it in every case where it was proposed to inaugurate a small water supply.

Speaking of motors, Mr. MIDDLETON had said that the hydraulic ram was the most economical, and could be worked by foul water to pump clean water; but his own personal experience of a ram on such principles was that it did not long work very satisfactorily. It was, if he might say so, a rather tricky machine, and did not do such reliable work as an ordinary ram that pumped some of the same water which worked it. It was very safe and nice, but the machines were, he thought, constructed rather lighter than they ought to be. It was, in his opinion, an important thing that a hydraulic ram should be sufficiently solid and strong.

Storage required in the case of a windmill was mentioned in the Paper. This was, probably, the most intermittent of all the machines enumerated, but he did not think the author had made the case against windmills quite strong enough. The windmill was an extremely attractive motor to amateur engineers, and it went on very well so long as it was carefully attended to with every change of wind.

But his objection to a windmill or to any intermittent machine was with regard to the storage of the water. One might find a source good enough to supply a community if pumped continuously during every 24 hours, but if it was impossible to pump more than a few hours a day, or a few days a week, there must be a larger supply from the spring,

or storage for the unpumped water, as well as for the water which had been pumped. He did not think Mr. MIDDLETON had made out the case against windmills so strongly as might have been done. He agreed with what had been said with regard to oil and gas engines for small water supplies.

The importance of avoiding dead ends was insisted on, and, no doubt, if dead ends were avoided, the pipes would work much more efficiently. But there was also the fact to be considered that it was from the dead ends of pipes that the exceptionlly bad samples of water were taken, and that dead ends were often the immediate cause of burst mains.

With one remark of Mr. MIDDLETON's he thoroughly agreed. No one should think of starting a rural waterworks of any size without consulting a competent engineer.

It was argued that it was not robbery to take water from a river if a storage reservoir were formed and compensation water put back. That was perfectly true, but Mr. MIDDLETON did not make the case quite strong enough. He (Mr. BIRCH) had to do with compensation to millers on several occasions, and found that an arbitrator would generally hold that, if water were taken from a river and a miller below complained and wanted compensation, and if it were shewn that the water was being supplied to a community which had a sewer discharging into the same river above the complainant's mill, the miller was entitled to little or no compensation, but was told—and very fairly indeed—that the fact of the community taking water in the winter, and storing it and giving it back through the sewer in the summer, was to his advantage.

Mr. R. F. GRANTHAM (Associate) said he was very glad to be able to add an expression of his appreciation of the value of Mr. MIDDLETON's Paper, particularly at the present

time, when further powers had been given to Parish Councils and villages, to enable them to get water.

It seemed to him that the question of water supply to villages stood high among the most important sanitary measures, for it was often necessary to lay out schemes of sewerage for small communities where there was really no adequate system of flushing the sewers, and, in his opinion, the water supply should be the first thing to be attended to; for, as long as there was a good water supply, the sewerage would be self-cleansing, and the soil affected by the drainage round the buildings would not contaminate the water supplied to those buildings.

As Mr. MIDDLETON had said, the villagers themselves were the chief opponents to the carrying out of any scheme of water supply. This he had found in a case which he had to investigate in Hertfordshire with respect to the supply of two large farms on the high lands. He measured some wells in a neighbouring village, and found them from 30 feet to 70 feet deep. The people said they did not want a water supply, for they had plenty of water. They had to lift every drop of it from those depths, but, in spite of that, it was impossible to induce them to see the advantage of a regular supply laid on to their houses.

And this was the case although (as he mentioned when he had the honour of reading a Paper before the Institution on a similar subject some years ago, quoting from a Paper by Mr. TERRY) there were several cases where such water supplies as were now being considered had been carried out at 2*d.* per head per week, or even less.

There was some difficulty with regard to the borrowing powers of the Parish Councils. He knew of a case where a village in such a difficulty went to the Rural District Council for assistance, and he believed that they would be able to borrow the requisite amount, for, under

Sections 15 and 29 of the Local Government Act of 1894, the Parish Councils could act as agents to the Rural District Council, while the Rural District Council applied for the money to the Local Government Board. This, however, they would only probably do subject to the entire expenditure being charged on the parish alone and not as general expenses on the whole district.

Mr. W. HUNTER (Visitor) said he was glad to find that Mr. MIDDLETON had considerable faith in human nature, for, while he proposed in some cases to duplicate machinery, he proposed still to trust its working to one man.

He agreed with Professor ROBINSON as to the great importance of looking at the question of water supply from a national point of view, for, while the population of the United Kingdom was continuously increasing, the available water supply remained the same. He thought this must be kept in mind, and that every endeavour should be made to bring pressure to bear upon the Legislature to look at the matter in this light when sanctioning water-works schemes.

He agreed with Mr. BIRCH as to dead ends. The trouble caused by the late terrible frost was largely due to the want of circulation in the pipes, partly from this cause but mainly from the freezing of the communication pipes to the houses, belonging to the consumers.

He would venture to refer to the remarks which had been made with reference to medical officers and surveyors, who sometimes caused much trouble to water companies. They were, at any rate, somewhat extravagant in their view as to what amount of water should be supplied per head of the population. It was, no doubt, important that there should be a sufficient supply, but it was equally important that waste should be discouraged. He hoped, therefore,

that surveyors, in dealing with this question, would assist the water authorities to keep down waste and undue consumption. In the Grand Junction Company's district, for instance, there was a consumption of something like 42 to 43 gallons per head, whereas in Norwich and some other towns which he could mention, the consumption was only from 17 to 18 gallons a head. It was evident that there was something wrong, and he thought it was most important that in these times, when the population was increasing and the available water supply remained the same, great attention should be paid to the question of waste.

He had nothing to add but to congratulate Mr. MIDDLETON on his Paper, which would form a most valuable contribution to the "Transactions," and be of the greatest use to all engineers and surveyors who had to deal with the question of small water supplies.

Mr. C. JOHN MANN (Fellow) said it had come within his experience that impure water had sometimes been used for such purposes as the cleansing of vessels employed, perhaps, for the conveyance of milk, and that serious results ensued from the use of such water for these purposes.

As to deep wells, he would ask whether it was always possible, if there was much impure water in the ground in the vicinity of such wells, to prevent its contaminating the source from which the water was obtained.

With regard to the different motive powers available, he thought there was one which had not been mentioned, but which he had heard of as being frequently used in country houses with considerable success, namely, the hot-air engine, which seemed to do good work in the way of pumping water. He agreed that horse power was generally unsatisfactory,

and that almost any other mode of pumping was cheaper. Gas, of course, was not always to be obtained, and where it could not be got he thought the hot-air engine might, with advantage, be tried. The co-operation of a group of districts for the purpose of a water supply was a point that deserved the greatest attention, for those who lived in country villages knew that the present system was often a very costly and unsatisfactory one.

Water was, in some instances, so heavily charged with lime, that this became a serious difficulty which, if it must be met by the adoption of some softening process, would present difficulties in the way of expense. This might be overcome by the combination of several small communities into one water supply district.

Dead ends of pipes were a frequent source of trouble, and especially in cases where the water was heavily charged with lime. When the blank ends were cleaned out, the water was often found to be in a very objectionable condition.

With regard to the supply of water to country houses and other large isolated buildings, he did not think sufficient attention had been paid to the question of a rain-water supply. There were many houses in the country districts where a splendid supply was obtained from this source. The rain-water was collected in large tanks, and was sufficient for the purposes of fire extinction and for every other requirement.

The filtering of stream water was, he thought, a very rough-and-ready sort of process as practised in many country places, and he should think that the pumping of water from deep wells was generally much more satisfactory.

The pollution by manure, to which Professor ROBINSON alluded, was, no doubt, a source of considerable evil in

country districts, especially in those which relied on surface wells for a supply.

A water supply was certainly necessary to wash the sewers, but a system of sewerage was equally necessary where there was a large water supply. Each, in fact, seemed to be dependent on the other.

Mr. J. H. SABIN (Professional Associate) said he thought it would be useful if Mr. MIDDLETON could place on record the results of any smaller schemes than those he had mentioned, the smallest of which provided for a population of over 500. This represented a rather large village, and he should like to know whether Mr. MIDDLETON could suggest some comparatively cheap means of supply for villages with 100 to 150 inhabitants.

In parts of Lincolnshire some villages had not even that number, and the cost would be very materially increased, per head, if such a plant as that which Mr. MIDDLETON had mentioned had to be laid down, where there were only, say, 60 to 70 inhabitants.

He had in mind a village which had recently been supplied at a cost of under £500, the population being about 120. In that case the somewhat despised windmill was being used, but up to the present time, at any rate, the result was exceedingly satisfactory. The supply was more than ample, and a considerable portion of the superfluous water was useful for flushing purposes. It was obtained in absolute purity from a bore about 100 ft. deep, and was raised to a tank sufficiently high to supply the whole village by gravitation. The windmill had withstood the gale of the 24th of last March with a most exemplary stability, and nothing had happened as yet to shew that anything was likely to go wrong; but it was only in very exceptional

cases that such a supply could be obtained for a small community.

Mr. MIDDLETON, in replying, said that, although the population of the villages he had quoted in his tables were contained in his original draft, they were advisedly omitted from the Paper, as he did not wish to have the particular places too easily identified. He feared a flood of letters from each of them, possibly contradicting his figures and pointing out innumerable apparent errors.

It had been said by Professor ROBINSON that a gravitation scheme was frequently not applicable to villages, and he had in his Paper endeavoured to shew that this was the case. In many cases (and, indeed, in most cases) gravitation schemes did work out more expensively than pumping schemes, although this was, perhaps, not apparent from the examples which he had given. His own experience, as he had said, was that in almost all cases gravitation schemes for small places had worked out as more expensive than those pumping schemes which had been carried out, for it was often necessary to go a considerable distance from the village for a supply, and the consequent length of the mains was great, and the cost of the storage to be done was also considerable in comparison with the amount of water used.

His own experience was that villagers took water from almost any source, even from where cattle would hardly drink, and this they would use for all household purposes rather than bring clean water from any considerable distance. What a scarcity of water meant he well knew from experience in America, where he remembered, when riding long distances under great heat, having been glad to lie down in the road and drink out of any puddle where there was just enough water to touch.

It was true that there were many cases where the rateable value of the district was not sufficient to pay for the cost of a supply ; but he wished rather to point out those cases where the rateable value *was* sufficient for the supply, and he thought that these formed a large proportion, except in straggling districts, where the length of the pipes was increased by the distance apart of the houses. The rateable value was generally sufficient to pay for the supply, at rates which were not particularly onerous.

He was reminded by Professor ROBINSON of his omission to mention the pollution of water from arable land, but he (Mr. MIDDLETON) had rather in his mind ground that was generally taken as being unpolluted, such as mountain land. The pollution of arable land was so well known that he did not think it necessary to call attention to it, but he called attention to the fact that the high mountain land, used almost exclusively for sheep, and where the streams were small, might contain considerably more pollution than was fixed as the maximum allowable by the London County Council in the case of water drawn from the Thames.

With regard to the question of watersheds, he thought there could be no doubt that the time must come when the division of the country would be not by counties, parishes, or unions, but by watersheds. The watershed was infinitely the simplest division for almost all purposes, for its adoption would promote a more careful and efficient use of water, and would encourage irrigation, which, if properly carried out, meant not only increased value in the land, but also a reduction of loss from flooding. No irrigation system was worthy of the name if it did not provide for the reduction of flooding by storing some of the superfluous water for dry seasons, and by providing channels by which the rest might be carried off.

The use of water for power and for transport purposes might also be promoted by the division into watersheds, and, as all in one district would have an equal interest in looking after its water supply, there would not be the same jealousy that existed at present.

Referring to the subject of irrigation, he had seen a good deal of irrigation in different parts of the world, and especially when, some years ago, he lived in Roumania. Roumania was a country of alluvial soil, in many cases 30 feet deep. When he lived there, many years ago, the cultivators used an instrument exactly like the old Roman plough. It was simply a bent stick with a little iron at the end, dragged along the ground by two bullocks. The result was a mere scratch, in which maize was sown, but the produce was a crop which would overtop one's head by two feet. If only irrigation had been properly carried out, a single year's crop would be a fortune; but the people were generally too indolent, and they left all the work, and the consequent profit, to the more industrious Bulgarians, who came over there in the summer and acquired little patches of ground on the sides of the river, which they irrigated, and on which they grew vegetables for sale in the towns at a large profit. In a great part of that country the rivers were specially adapted for the purpose of irrigation, for, curiously enough, they did not generally cut even into that alluvial soil, but rose above it. They carried down a quantity of gravel, which formed a new bed, which gradually rose until a large number of the rivers were several feet above the surrounding country, and were only kept in by banks of shingle. These had collapsed sometimes, and there had been great floods in some years; but if they were protected by art as well as by nature there never need be a break through, and the water could be

used for irrigation purposes with the least amount of trouble, labour, and cost. He believed very large fortunes might be made by a careful use of the water that existed in that country, even in the case of rivers that had cut down into the alluvial deposit, if they were tapped at a level high enough to carry the water over the surrounding country.

He had seen something of irrigation in America, and had read a good deal more. By its means it was possible to obtain, in parts where the water supply was plentiful, five or six crops in a year instead of only two. He had already called attention to the fact that irrigation, properly carried out, included storage; which meant using water on the land, and in the sewer, when wanted, and reducing damage in flood seasons.

The promoters who had been spoken of as to blame, for their want of public spirit, had been characterised by Mr. BIRCH as merely prudent, in view of what was likely to be the fate of certain water companies. But he was not quite so pessimistic as Mr. BIRCH, and did not think those undertakings would be bought for old iron just yet. He had a better opinion of the honesty of our national policy.

Ten gallons per head had been mentioned as undoubtedly a sufficient supply, but Mr. BIRCH said that it was no use for engineers to say so: that the public had to depend on surveyors and medical officers to teach them the truth. He thought that Mr. BIRCH went rather too far in saying that. There was, for instance, the evidence of the engineer to the London County Council, who was formerly engineer for Bradford, and wrote an elaborate report on the reduction of waste in that town, in which he said that in every large district of that town the supply per head, before water meters were introduced, was at the rate of a little over 22 gallons,

which was, certainly, not exorbitant; but that for one district, of 80,000 population, the waste was reduced, after the meters had been put in, by to less than 14 gallons per head. If that were so, he thought it ought to prove that this was a sufficient supply. In country districts he had provided 10 gallons per head, and a little more for Sundays, and had found that the full quantity was seldom used.

It was said that 2-inch pipes were not cheaper than 3-inch, on account of the shorter lengths and the jointing. But there was something besides to be considered, and that was the question of valves. He had found, as a matter of fact, that the difference of cost was very appreciable, and that it was quite worth while, with a proper circulation without dead ends, to use 2-inch pipes instead of 3-inch, or they might even, in some cases, be reduced to 1½-inch with satisfactory results. A question of £10 in a small water-works scheme was often a matter to be considered. A gravitation scheme was cheaper than pumping, in some cases, but not in all. If it was quite certain that the well would yield a certain amount of water at a certain depth, then probably a pumping scheme was preferable, for the quality of the water would be certain, and the cost of pumping easily estimated, whereas a gravitation scheme might cost a good deal more than the original estimate. On the other hand, in sinking a well, some fault in the strata might be met with, and, instead of getting the quantity of water expected, it might be necessary to go much deeper, in which case the pumping scheme, instead of being cheaper, would be an exceedingly expensive one.

As to hydraulic rams pumping fresh water by means of dirty water, he agreed with Mr. BIRCH. To pump clean water with dirty water required a perfectly steady ram, or the pumping would be tricky. He knew of three or four

rams of the kind, and was aware that if there were any shakiness they became very tricky; but so long as they were quite steady and firm, and there was no jumping in the foundation, he thought they generally gave satisfaction.

Then, Mr. BIRCH said that his remarks about windmills were not strong enough. He could only say that his experience of windmills—not of any that he had put up, for he should never advise the use of windmills if he could persuade people to use anything else, but of those he had seen and knew of, if in a bad situation such as under the lee of a hill for instance—was that they would scarcely do anything, but under favourable conditions he thought they would do what he said.

It had been said that dead ends were to be avoided. Certainly they should be avoided, especially in view of the experience of the late frost. In designing water supplies he always avoided dead ends, and in these cases there had not been a single case of the freezing of the mains, which were laid only at the depth common all over the country. In some cases fountains had frozen, but he did not think anything would prevent that. Ordinary hydrants were attached to the mains, but they were in every case properly stopped with straw.

It was said by Mr. GRANTHAM that water was necessary for flushing sewers. That was true, but he thought that as the law stood at present one could not make a sewer and call upon the inhabitants of the place to connect their drains with the sewer unless there was a water supply. If there was a water supply there ought to be a sewerage scheme; but the water supply must come first.

It was true that Mr. TERRY, in his Paper, instanced cases where the work had been done at a cost of 2*l.* per head per week, but those cases were decidedly exceptional.

The greater number of small village supplies cost rather above than below the figures he had given.

It was said that parish councils could get the money by applying to the rural district council. The procedure was exactly similar to what existed before parish councils and district councils were introduced. In the old times, when a district wanted money for a water supply they had to apply to the rural authority, and then form a parish committee with power to utilise the money provided by the Local Government Board at the instance of the rural sanitary authority. The only difference at present was that the parish council took the place of the parish committee, and the district council that of the rural sanitary authority.

It was said by Mr. HUNTER that he (Mr. MIDDLETON) was a believer in human nature because he said that one man could look after a village water supply. He could only say that he knew of many cases of the kind. He knew a town of about 4,000 inhabitants, not very far from London, where one man pumped the water, kept the engines clean, and went round and collected the water rates, and looked after the mains and connections.

With regard to the freezing of pipes during the late frost, in almost all cases the mischief was due to the communication pipes freezing first, and there being, therefore, no circulation. In the frost of 1891 the communication pipes were, in many cases, frozen, but in no case, then, so far as he knew, was a main frozen. But he would go so far as to say that if the mains frozen during the late frost had not been dead-end mains, as almost all of them were, but mains laid in circuit, there would scarcely have been a single case of damage.

Then, Mr. HUNTER went on to speak of the supply which the Grand Junction gave, of 43 gallons per head ;

but it was possible that the Grand Junction Company preferred the expense of pumping to that of looking after the waste.

A question was asked as to the fouling of deep wells. It was perfectly easy to prevent the fouling of deep wells. In most cases they had to be steined, so as to prevent the surface water going into them. It was simply a question of how much the steining would cost. Sometimes they had to be tubed with cast iron, in which case the expense was considerable, but in most cases brick would keep the water out, and the cost was not so heavy.

He had not used hot-air engines, but he had seen them in use occasionally, and had no doubt they would work satisfactorily; but, not being able to speak as to their economical results from experience, he had not mentioned them.

The question of taking the lime out of water was one of cost. In some parts of Hertfordshire, in the Colne Valley district, it was done, and was considered worth the expense; but he should doubt if, in the case of the comparatively small quantity of lime held in suspension in London water, it would be worth while to do it.

Rain supplies for large dwellings had been used, but his experience of them abroad was such as to make him condemn them entirely, unless under very exceptional circumstances.

Filters in the country were generally very rough and ready, and, as he had said, the use of them largely increased the cost of waterworks.

With regard to villages of less population than those instanced in his Paper, he had no experience of villages quite so small as to contain only 100 persons; but he had endeavoured to shew what the cost of works would be on a

moderate scale. It was very easy to establish waterworks at a cost of £5 a head, but he was talking of supplies at the rate of about 30s. a head, and it ought to be possible, he thought, to supply 100 persons at considerably less than £500; but, as he said before, each case had to be considered on its own merits.

The vote of thanks having been put and carried unanimously, the Meeting then adjourned.

THE ANNUAL GENERAL MEETING,

Monday, May 27th, 1895.

DANIEL WATNEY (VICE-PRESIDENT) in the Chair.

The Report of the Scrutineers, appointed at the Ordinary General Meeting of Monday, April 29th, 1895, under the provisions of Article XLII. of the By-Laws, was read to the Meeting.

The Report declared that the following had been elected a
COUNCIL FOR THE ENSUING YEAR.

President.

DANIEL WATNEY

Vice-Presidents.

ALEXANDER MILNE DUNLOP

ROBERT VIGERS

CHRISTOPHER OAKLEY

THOMAS MILLER RICKMAN

Members of Council.

ROBERT GEORGE CLUTTON

HERBERT THOMAS STEWARD

JOHN SHAW

CHARLES BIDWELL

ARTHUR GARRARD

RICHARD HORSFALL

JOHN F. L. ROLLESTON

WILLIAM WRIGHT

ARTHUR VERNON

GEORGE LANGRIDGE

HENRY DREW

DANIEL CUBITT NICHOLS

FRED. THOS. GALSWORTHY

THOMAS TAYLOR WAINWRIGHT

ALBERT BUCK

JACOB WILSON FAIR

Professional Associates of Council.

EDWARD SMYTH

JOSEPH HENRY SABIN

Associates of Council.

SIR RICHARD EVERARD WEBSTER, K.C.M.G., Q.C., M.P.

JOHN WOLFE BARRY, C.B.

THE SECRETARY read the following letter from the retiring President, Mr. THOMAS CHATFEILD CLARKE:—

OAKFIELD,
WOOTTON COMMON,
ISLE OF WIGHT,
May 27th, 1895.

MY DEAR MR. ROGERS,

Accompanied herewith I have the honour to present to The Surveyors' Institution a Gold Chain, which I trust may be worn in conjunction with the Badge already possessed by the Institution.

I hope it may be felt by the Members of the Institution that I do this from my deep interest in its welfare, and as a humble mark of the value I attach to the work carried on.

It is a source of very deep regret that I cannot, from the state of my health, be present at the Annual Meeting.

Very faithfully yours,

(Signed) THOMAS CHATFEILD CLARKE, P.S.I.

J. C. ROGERS, ESQ.

The new President, Mr. DANIEL WATNEY, was there-upon formally invested by Mr. CHAS. J. SHOPPEE (Past-President) with the Gold Chain of Office presented by Mr. THOMAS CHATFEILD CLARKE.

THE PRESIDENT, in acknowledging the investiture, expressed an earnest hope that the Chain and the Badge with which it was associated might be worn by a long succession of Presidents as distinguished for ability and devotion to the interests of the Institution as Mr. CLARKE and his other predecessors in the Chair.

The Report of the Council on the state of the Institution and the Statement of Receipts and Expenditure for the year 1894 were read.

IT WAS RESOLVED—"That the Report of the Council and the Balance Sheet be received and approved, and be printed and circulated with the 'Transactions.'"

IT WAS RESOLVED—"That the thanks of the Institution be given to Messrs. H. C. NEWMARCH and G. CADELL for the efficient performance of their duties as Auditors, and that they be requested to continue their services for the ensuing year."

IT WAS RESOLVED—"That the thanks of the Institution are due, and be given to the President, the Vice-Presidents, and the other Members and Associates of Council, for the able manner in which they have administered the affairs of the Institution."

IT WAS RESOLVED—"That the thanks of the Institution be given to Mr. JOHN WORNHAM PENFOLD (the Honorary Secretary), to Mr. JULIAN C. ROGERS (the Secretary), and the other Officers of the Institution, for the able manner in which they have executed their several duties."

THE PRESIDENT presented the following Prizes won by Candidates in the Preliminary and Professional Examinations, 1895 :—

THE INSTITUTION PRIZE OF THE VALUE OF £15 15s.

To HERBERT JOHN WATSON, placed first in the Students' Proficiency Examination, 1895.

THE SPECIAL PRIZE OF THE VALUE OF £10 10s.

To WILLIAM SELVES WALKER, placed second in the Students' Proficiency Examination, 1895.

THE CRAWTER PRIZE OF THE VALUE OF £10.

To CYRIL FROODVALE DAVIES, for the best work in the subject of "Valuations" in connection with the Fellowship Examinations, 1895.

THE PENFOLD GOLD MEDAL.

To THEODORE GERVASE CHAMBERS, for the highest number of marks (over 75 % of the maximum) in the Fellowship Examination, 1895.

THE DRIVER PRIZE OF THE VALUE OF £15 15s.,
for the highest number of marks in the Examination (1895)
for Non-Student Candidates for the Class of Professional
Associates, and

THE PENFOLD SILVER MEDAL

for the highest percentage of marks (over 75 % of the
respective maxima) in the Two Divisions of the Associate-
ship Examination, 1895.

To HUGH MAJOR MESSENGER.

THE PRELIMINARY EXAMINATION PRIZE, 1895.

To FRANCIS ARTHUR PINFOLD.

It was resolved—

“That the thanks of the Meeting be given to Messrs. A. HARSTON, G. H. MOULD, and A. ROODS (Fellows), and to C. H. HOOPER and F. MELROSE (Professional Associates), for their services as Scrutineers.”

A vote of thanks to THE PRESIDENT for his conduct in the Chair was passed unanimously, and the Meeting terminated.

THE TWENTY-SEVENTH ANNUAL REPORT OF THE COUNCIL.

Annual General Meeting, May 27th, 1895.

The Members will easily gather from the following review that the year has been marked by steady progress in all directions.

There are one or two matters calling for a few words of special comment. As regards the rest the appended facts and statistics will best speak for themselves.

The following table shews the numbers of all classes on the Roll as compared with the numbers at the corresponding period of last year :—

TABLE A.

	Honorary Members.	Fellows.	Professional Associates.	Associates.	Students.	Colonial Fellows.	
May 1895	15	1,623	430	83	210	6	2,367
May 1894	14	1,620	381	84	204	6	2,309
	+1	+3	+49	-1	+6	<u>+</u>	+58

It will be seen that there has been a total increase of 58 in the number of Members during the year, as against an

increase of 40 during the year May 1893 to May 1894. This total is made up by the addition of 1 to the number of Honorary Members, 3 to the class of Fellows, 49 to that of Professional Associates, and 6 to that of Students. The number of Colonial Fellows has remained unchanged, there having been one election to that class and one transfer from it to the Fellowship. The decrease of 1 in the Associateship Class is due to a transfer to the class of Honorary Members.

The number of Fellows elected during the year was 4, and the transfers from the Professional Associate Class to the Fellows' Class 25, against which must be set a loss by death of 13, and by cesser of Membership of 13, or a net increase of 3 in this Class.

The Class of Professional Associates has been increased by 88 elections, making, after deducting 3 losses by death, 25 transfers to the class of Fellows, and 1 retirement; a net gain of 49. The class of Students shews a small increase.

The Institution has lost by death 17 of its Members during the year—among them several widely known in the profession. One of the latter, Mr. FRANCIS VIGERS, was a Founder Member of the Institution, a Member of the Council for 25 years, and a Vice-President from 1885 to 1893, when, on retiring from business and resigning his seat on the Council, he was transferred to the class of Honorary Members. By the death of Mr. JAMES RAWLENCE, in September last, the Institution lost a Member who occupied a conspicuous place in the very foremost rank of agriculturists, and one who was held in the highest respect throughout the profession. Mr. P. D. TUCKETT was well known to the Members as a clever contributor to the "Transactions" and the "Professional Notes," and one of the most constant speakers at the Ordinary General Meetings of the Institution.

The following table shews the increase of Membership, year by year, since the foundation of the Institution in 1868 :—

TABLE B.

	Members (or " Fellows " after 1881).	Associates.		Students.	Total.
		Professional.	Ordinary.		
May 1869 ...	162		38	2	202
" 1870 ...	180		59	2	241
" 1871 ...	190		65	2	259
" 1872 ...	205		67	4	276
" 1873 ...	225		74	5	304
" 1874 ...	247		89	6	332
" 1875 ...	275		101	11	387
" 1876 ...	300		119	8	427
" 1877 ...	310		133	11	454
" 1878 ..	312		134	8	454
" 1879 ...	330		146	10	486
" 1880 ...	342		155	10	507
" ¶*1881 ...	357		164	14	535
" 1882 ...	480		235	7	722
" 1883 ...	557	218	74	38	887
" †1884 ...	666	307	80	58	1121
" 1885 ...	703	317	86	86	1192
" 1886 ...	716	316	84	80	1196
" 1887 ...	741	339	89	108	1277
" 1888 ...	793	333	90	102	1323
" 1889 ...	910	334	89	110	1443
" 1890 ...	1095	310	89	123	1617
" ‡1891 ...	1374	336	96	140	1946
" 1892 ...	1646	342	97	172	2268
" 1893 ...	1629	353	93	181	2269
" 1894 ...	1626	381	84	204	2309
" 1895 ...	1629	430	83	210	2352

* After August 1881 " Members " were designated " Fellows," and in 1883 " Associates " were divided into " Ordinary " and " Professional " Associates.

† The Compulsory Examination for Professional Associates came into operation in 1884.

‡ The Compulsory Examination for all classes of Professional Members came into operation in August 1891.

¶ The Charter was obtained on August 26th, 1881.

The Honorary Members, 15 in number, are not included in the above totals.

The foregoing table shews that since the foundation of the Institution there have been elected 2,736 Members (besides Students), while the loss from death or cesser of Membership has been 568 during the 27 years.

FINANCE.

The receipts from subscriptions shew an increase of £153 as compared with those of the previous year, but this increase is more than neutralised by the decline of £172 in the receipts for hire of rooms. Dividends shew an increase of about £50, the whole income under these three heads totalling up to £7,102 8s. 3*d.*, as against £7,061 2s. 11*d.* in 1893.

Comparing 1893 with 1894, the various increases under the head of current expenditure (after deducting the heavy item of law charges, to which a reference will be made later on) amount in the latter year to £354, as against decreases amounting to £100, shewing a net increase of £254, which is nearly all accounted for by additional expenditure under the items of rates and taxes, printing, and repairs, which, with the exception of the last, are in the nature of growing charges.

On the capital side of the account, entrance fees shew an increase of nearly £150 as compared with 1893. The expenditure under this head has been merely nominal. Money donations to the Library Fund amounted during the year to £120, being £55 less than in the previous year. The expenditure on the Library (£30) in purchase of books, is practically the same as last year, but a considerable sum (£120) has been expended on the Forestry Museum, and £225 on the printing and gratuitous issue of the new

Library Catalogue to all the Members. The item £845 for law charges represents the cost of opposing the London Streets and Buildings Bill before Committees of both Houses of Parliament. The Council feel confident that this expenditure, large as it was, will meet with the approval of the Members, if regard be had to the very important position occupied by the Institution in relation to the interests threatened by the Bill, to the beneficial changes in it which the Council succeeded in effecting, and, lastly, to the status accorded to the Institution in connection with the new Tribunal of Appeal.

The "Transactions" have cost (net) £489 3s. 10*d.*, as compared with £527 18s. 8*d.* in 1893, a diminution of £38 14s. 10*d.* The net cost of the "Professional Notes," on the other hand, shews a slight increase.

The following is a summary of the Balance Sheet for the year ending December 31st, 1894:—

TABLE C. SUMMARY.

RECEIPTS.			EXPENDITURE.		
	£	s. d.		£	s. d.
Revenue Balance in hand,			Total Payments out of Re-		
January 1st, 1894	152	5 11	venue, Current Expenses	4,617	4 5
Capital Balance in hand,			Purchase of Stock	1,654	9 6
January 1st, 1894	248	7 3	Examinations — Net Cost,		
Total Revenue	6,420	5 6	Excess over Fees	35	18 0
Entrance Fees	365	8 0	Furniture and Fittings ..	8	0 0
Interest ^{paid}	712	3 7	Law Charges and Advertise-		
			ments	869	2 3
			Capital Balance in hand,		
			December 31st, 1894 ..	168	16 7
			Revenue Balance in hand,		
			December 31st, 1894 ..	544	19 6
	<u>£7,898</u>	<u>10 3</u>		<u>£7,898</u>	<u>10 3</u>

The Receipts and Expenditure for the current year up to May 27th, 1895, were, approximately, as follows:—

TABLE D.

RECEIPTS.			EXPENDITURE.		
	£	s. d.		£	s. d.
Revenue Balance in hand,			Payments out of Revenue—		
January 1st, 1895	504	19 6	Current Expenses	1,524	13 1
Capital Balance in hand,			Examinations	39	13 1
January 1st, 1895	168	16 7	On Deposit	1,500	0 0
Total Revenue	5,766	19 7	Purchase of Stock	2,576	19 6
Entrance Fees	51	9 0	Revenue Balance in hand,		
Interest on Capital Account	14	19 1	May 27th, 1895	630	13 5
			Capital Balance in hand,		
			May 27th, 1895	235	4 8
	£6,507	3 9		£6,507	3 9

The liabilities at the present time do not exceed £160.

INVESTMENTS.

Since the commencement of the current year an addition has been made to the Corporation Investments by the purchase of £2,500 New South Wales $3\frac{1}{2}$ per Cent. Stock on Revenue Account, making the total Investments, at the present date, as follows:—£3,545 4s. 9d. $2\frac{3}{4}$ per Cent. Consols, £1,545 Great Eastern Railway 4 per Cent. Debenture Stock, £2,006 London & North Western Railway 3 per Cent. Debenture Stock, and £7,900 India $3\frac{1}{2}$ per Cent. Stock, and £2,500 New South Wales $3\frac{1}{2}$ per Cent. Stock, on Revenue Account; £1,558 12s. 10d. $2\frac{3}{4}$ per Cent. Consols on Library Account; £9,030 7s. 11d. New $2\frac{1}{2}$ per Cent. on Capital Account; £254 North British Railway Preference Stock on account of the Crawler Bequest; £190 Midland Railway 3 per Cent. Debenture Stock on account of the Beadel Bequest; and £503 1s. 11d. India 3 per Cents. on account of the Penfold Gift. These Investments, estimated at current prices, represent a sum of £32,096 17s. 5d.

The following table shews that 196 Candidates presented themselves for the Professional Examinations, 1895, of whom 141 were successful, and for the Preliminary Examination, 1895, 121 Candidates, of whom 80 passed, a very satisfactory increase on the numbers of previous years.

TABLE E.

Years.	Preliminary Examinations.			Professional Examinations.		
	Candidates.	Passed.	Percentage.	Candidates.	Passed.	Percentage.
1881	13	6	46·15	2	1	50·00
1882	30	17	56·66	—	—	—
1883	44	22	50·00	25	22	88·00
1884	51	30	58·82	36	23	63·89
1885	46	37	80·43	43	31	72·09
1886	46	34	78·26	56	38	67·85
1887	53	39	73·58	58	45	77·59
1888	48	39	81·25	73	52	71·23
1889	51	41	80·39	71	51	71·83
1890	53	44	83·01	96	70	72·91
1891	76	60	78·94	92	68	73·91
1892	83	64	77·10	125	93	74·40
1893	77	57	74·00	149	100	67·11
1894	97	66	68·00	182	129	70·87
1895	121	80	66·11	196	141	71·93
TOTALS	889	636	71·54	1204	864*	71·68

* In order to ascertain the exact number of persons who have passed the Professional Examinations, as distinct from the number of such Examinations which have been passed, it is necessary to deduct from the above total (864) those Candidates (225) who passed the Fellowship Examination after having passed the Professional Associateship Examination. This shews the actual number of persons who have passed one or both of the Professional Examinations to be 639.

Of the 196 Candidates who presented themselves for the Professional Examinations, 1895, 54 per cent. were from the Provinces, and 46 per cent. from the London District.

The Candidates in Divisions II., III., IV., and V., into which the Professional Examinations are divided, obtained an aggregate of 130,860 marks out of a possible 219,800, or 59·99 per cent. of the maximum; the percentage at last year's Examinations being 59·00 per cent. Of these marks 102,360 were obtained by the 141 successful Candidates, raising their average to 67·0 per cent. of the possible marks, as against 42·47 per cent., the average of the 55 unsuccessful Candidates, who obtained in the aggregate 28,500 marks.

The 47 Student Candidates (Division II.) obtained in the aggregate 26,942 marks out of a possible 47,000, or 57·31 per cent., their pass marks being 50 per cent.

The 89 Non-Student Candidates for the Professional Associateship (Division III.) obtained 62,920 marks out of a possible 106,800, or 59·32 per cent., their pass marks being 58 per cent.

The 60 Candidates for the Fellowship (Divisions IV. and V.) obtained 40,998 marks out of a possible 66,000, or 62·11 per cent.

Classifying the whole number of Candidates under the three Sub-Divisions into which the Examinations are divided, the 57 Candidates in Sub-Division I., "Land Agency," obtained 38,749 marks out of 63,900 maximum, or 60·53 per cent. The 88 Candidates in Sub-Division II., "Valuation," gained 56,734 marks out of a maximum of 97,700, or 59·99 per cent., and the 51 Candidates in Sub-Division III., "Building," 35,377 marks out of a possible 58,200, or 60·77 per cent.

The "Institution" Prize, of the value of 15 guineas, was gained by a Student in Sub-Division I. of Division II., with a total of 779 marks out of a maximum of 1,000, the "Special" Prize, of the value of 10 guineas, being awarded to a Candidate in Sub-Division II. of Division II., who passed second in that Division with an aggregate of 728 marks out of 1,000.

The Candidate in Division III. who gained this year's "Driver" Prize of £15, obtained 972 marks out of a maximum of 1,200, in the "Building" Sub-Division. This Candidate also gained the "Penfold" Silver Medal for the highest proportion of marks in Divisions II. and III.

The "Crawter" Prize, for the best work in the subject "The Principles and Practice of Valuation," competed for among the Fellowship Candidates in Division IV., was

awarded to a Land Agency Candidate who obtained 90 per cent. of the possible marks in this subject.

The "Penfold" Gold Medal was awarded to a Candidate in Sub-Division II. of Division IV. who obtained the high aggregate of 868 marks out of 1,000, and the "Penfold" Silver Medal to the winner of the "Driver" Prize in Division III., as above stated.

EXAMINATIONS.

This Report would be incomplete without an expression of the thanks which the Council owe to the Members who have again given so much time and labour to the work of the Examination, viz.:—Mr. F. A. PHILBRICK, Q.C., Mr. E. J. CASTLE, Q.C., Mr. T. W. WHEELER, Q.C., Mr. J. W. WILLIS BUND, and Mr. H. A. RIGG, who have again set the work and awarded the marks in the legal subjects; and Mr. G. J. BROWN, Mr. T. A. DICKSON, Mr. W. EVE, Mr. E. B. I'ANSON, Mr. T. JONES, Mr. C. J. MANN, Mr. G. MURRAY, Mr. A. L. RYDE, Mr. A. R. STENNING, and Mr. J. W. PENFOLD, who have undertaken, as Honorary Examiners, a large number of the technical subjects.

The Council also wish to acknowledge the very valuable services, in connection with these Examinations, of their colleagues Mr. C. OAKLEY, Mr. T. M. RICKMAN, Mr. J. SHAW, Mr. E. SMYTH, Mr. H. T. STEWARD, Mr. A. VERNON, and Mr. D. WATNEY.

A Branch Preliminary Examination was held at Manchester for the convenience of those Candidates for the Studentship who reside in the Northern and Midland Counties. The Council take this opportunity of acknowledging the valuable services of Messrs. J. HOLDEN, E. J. BRIDGFORD, H. S. BATEY, and W. H. CROSS, in arranging the details of, and successfully carrying out, this Branch Examination.

PROVINCIAL COMMITTEES.

The principal change which has taken place in the constitution of the Provincial Committees has been the division of the Northern Counties Committee, for the greater convenience of the Members composing it, into an Eastern, or Northumberland and Durham Committee, and a Western, or Cumberland and Westmoreland Committee. Mr. T. J. ARMSTRONG, of Newcastle-on-Tyne, has been elected Chairman of the former, and Mr. J. HOLME, of Milnthorpe, Chairman of the latter.

The following list gives the names of the Committees, and of their respective Chairmen, together with the number of Members comprised in each, and the approximate dates on which their Annual Meetings are held :—

TABLE F. PROVINCIAL COMMITTEES.

Committee.		Chairman.	Number of Members.	Date of Expiration of Chairman's Year of Office.
A ¹	Northumberland and Durham Committee	T. J. Armstrong	31	21 April.
A ²	Cumberland and Westmoreland Committee	J. Holme ...	17	9 April.
B	Counties Palatine	John Davies ...	103	2 June.
C	Yorkshire	J. Rutherford...	90	1 May.
D	Salop and Hereford	H. J. Wyley ...	33	12 May.
E	Derby and Stafford	G. Murray ...	36	18 May.
F	Nottingham and Lincoln	W.L.Huskinson	45	10 May.
G	Monmouth and South Wales	R. Forrest ...	31	4 May.
H	Warwick and Worcester	R. N. Holbeche	52	1 June.
I	Leicester, Northampton, and Rutland	E. K. Fisher ...	48	31 May.
J	Cambridge, Huntingdon, Norfolk, and Suffolk	J. C. Jonas ...	51	6 May.
K	Berks, Bucks, and Oxon	F. H. Field ...	43	24 April.
L	Beds, Essex, Herts, and Middlesex...	Hon. E.G.Strutt	48	23 May.
M	Devon and Cornwall	H. Drew ...	41	17 April.
N	Somerset, Glo'ster, and North Wilts	R. F. Sturge ...	51	16 April.
O	Hants, Dorset, and South Wilts ...	A. E. Marvin ...	86	5 May.
P	Kent	G. Langridge ...	64	24 May.
Q	Sussex	J. Woodhams...	32	25 August.
R	North Wales and Radnor	J. E. Poundley	19	30 May.

COUNCIL AND COMMITTEE MEETINGS.

There have been held, during the year, 17 Meetings of the Council, and 25 Meetings of the various Executive Committees, the attendances at which have been as follows:—

ATTENDANCES

From May 21st, 1894, to April 29th, 1895 (both inclusive).

NAME.	Total Council Attendances.	Total Committee Attendances.	Total Council and Committee Attendances.
MEMBERS.			
Bidwell, C. ...	5	—	5
Buck, A. ...	7	—	7
Clarke, T. C. ...	13	8	21
Clutton, J. ...	—	—	—
Clutton, R. G. ...	3	2	5
Cross, J. ...	—	—	—
Drew, H. ...	—	—	—
Driver, R. C. ...	1	—	1
Dunlop, A. M. ...	2	—	2
Galsworthy, F. T. ...	7	6	13
Garrard, A. ...	8	14	22
Horsfall, R. ...	3	1	4
Langridge, G. ...	10	3	13
Nichols, D. C. ...	12	5	17
Oakley, C. ...	10	5	15
Rickman, T. M. ...	11	11	22
Rolleston, J. F. L. ...	4	—	4
Shaw, J. ...	6	—	6
Shoppee, C. J. ...	5	—	5
Steward, H. T. ...	15	8	23
Sturge, W. ...	2	—	2
Squarey, E. P. ...	4	—	4
Vernon, A. ...	11	3	14
Vigers, R. ...	6	8	14
Watney, D. ...	16	15	31
Wright, W. ...	6	—	6
PROFESSIONAL ASSOCIATES.			
Sabin, J. H. ...	14	7	21
Smyth, E. ...	14	3	17
ASSOCIATES.			
Barry, J. W. ...	1	2	3
Webster, Sir R. E. ...	1	—	1

PUBLICATIONS.

Subjects of the greatest importance and interest have been dealt with in the 27th Volume of "Transactions" now approaching completion. The excellent Papers on "Taxation on Real Property and Land," by Mr. WILLIAM SIURGE and Mr. DUDLEY CLARKE, deservedly attracted a large amount of attention. The measure of their interest to the Members is the fact that their discussion occupied three entire evenings. The useful Papers on "The London Building Act," by Mr. BLACKBOURN; on "Light Railways," by Mr. A. C. PAIN; on "Agricultural Credit Banks," by Mr. E. M. LEMAN; on "Forestry," by Mr. GEO. CADELL, and on "Village Water Supplies," by Mr. R. E. MIDDLETON, were all of a character to maintain the reputation of the "Transactions."

It is hoped that the "Professional Notes" still fulfil to the satisfaction of the Members their purpose as a handbook of current information and reference on points of practice.

GENERAL.

In their last Report the Council detailed the steps they had taken, up to that time, for opposing the "London Streets and Buildings Bill" before the Hybrid Committee of the House of Commons. Their subsequent action and the results ultimately achieved were referred to at some length in the able Address with which THE PRESIDENT opened the Session in November last. It will be sufficient for the purposes of this Report to state that our three representatives, Mr. GARRARD, Mr. STEWARD, and Mr. CUBITT NICHOLS, who appeared before the Committee, and to whom the best thanks of the Institution are due, succeeded, themselves or in concert with others, in greatly modifying some main features of the Bill, which finally emerged from the Legislature under the title of the London Building Act,

1894. It is too much to look for finality in an Act of so complicated a character, but, as it stands, it may be regarded as a very successful attempt at the codification and amendment of previous Acts, and is likely to be of great benefit to the Metropolis.

The Institution may fairly congratulate itself on the position accorded to it in relation to the new Tribunal of Appeal, which, should it answer the expectations entertained respecting it, may well be invested, at no distant date, with powers for dealing with other matters of difference which now find their way into the rather inappropriate and much overburdened Courts of First Instance.

The Members may recollect that the Institution is empowered by Section 175 of the "London Building Act, 1894," to appoint one of the three Members constituting the new Tribunal of Appeal, the other two Members being appointed, one by the Secretary of State and one by the Royal Institute of British Architects. Mr. THOMAS CHATFEILD CLARKE (the retiring President of the Institution) was appointed by the Council in December last, but, owing to the present state of his health, he has found it necessary to request the Council to elect a temporary substitute, and their choice has fallen on Mr. JOHN WORNHAM PENFOLD. It is satisfactory to the Council to record the fact that all three Members of the Tribunal are Fellows of the Institution.

THE AMENDMENTS TO THE BY-LAWS.

As the Members are aware, the Council are taking steps (the subject of long and careful consideration for many months past) for increasing the Membership of the Institution in parts of the United Kingdom where, at present, it is insufficiently represented. With this object they have found it necessary to ask (and have obtained) the sanction of the Members to certain changes in the By-Laws.

Should these amendments receive official ratification, the Council propose to admit to corporate rights and privileges the present Members of the Irish Land Agents' Association, some 200 in number, all of them persons of good social and professional position.

The Members of this Association have agreed to dissolve their own Society and become Members of the Institution, provided they are excused an Examination prohibitory to men of mature years, and not adjusted to the lines of professional practice in Ireland.

The Council, feeling the force of these objections, have consented, subject to the grant of the requisite powers, to waive the Examination in favour of all Members of the Association elected before the 25th March last, provided an appropriate system of compulsory Examination (the details of which have been agreed) be at once introduced in Ireland.

The Council are, of course, aware that it is possible to raise abstract objections to the course they propose, but they feel strongly that the merely technical aspect of the case should not be allowed to prevail against the larger policy of comprehension which has always governed their action. The result will, it is hoped, be that the Institution will become in fact, what it claims to be in theory, the one body representing the profession throughout the United Kingdom.

It should be added that the Council have taken the opportunity of making some further amendments in the By-Laws necessary for bringing them into greater harmony with the Charter.

In conclusion, the Council desire to express their acknowledgments of the continued confidence reposed in them by the Members, and which has done so much to lighten their labours and encourage them in their efforts on behalf of the Institution.

REVENUE

1894.		RECEIPTS.	£ s. d.	£ s.
1506	Fellows' Subscriptions for 1894, at £3 3s.	- - - - -	4,743 18 0	
29	" " arrears at £3 3s.	- - - - -	91 7 0	
24	" " 1895, in advance at £3 3s.	- - - - -	75 12 0	
2	" " part paid	- - - - -	2 2 0	4,912 19 0
450	Professional Associates' and Colonial Fellows' and Associates' Subscriptions for 1894, at £2 2s.	- - - - -	945 0 0	
26	Professional Associates' and Colonial Fellows' and Associates' Subscriptions for 1894, in arrear, at £2 2s.	- - - - -	54 12 0	
3	Professional Associates' and Colonial Fellows' and Associates' Subscriptions for 1895, in advance, at £2 2s.	- - - - -	6 6 0	1,005 18 0
164	Students' Subscriptions for 1894 at £1 1s.	- - - - -	172 4 0	
2	" " arrears, at £1 1s.	- - - - -	2 2 0	
1	" " 1895 in advance at £1 1s.	- - - - -	1 1 0	175 7 0
	Hire of Rooms	- - - - -	- - -	326 1 0
	Dividends	- - - - -	- - -	682 3 0
	Transferred from Capital	- - - - -	- - -	450 0 0
	Cash at Bankers, January 1st, 1894, and in hands of Secretary	- - - - -	- - -	152 5 0

£7,704 15 0

CAPITAL

Fellows' Entrance Fees	- - - - -	£72 9 0
Professional Associates', Associates', and Colonial Fellows' Fees	- - - - -	292 19 0
Interest (on Crawler Bequest)	- - - - -	£9 16 11
" (on Beadel Bequest)	- - - - -	5 10 7
" (on Penfold Gift)	- - - - -	14 12 4
Balance at Bankers, January 1st, 1894	- - - - -	29 19 0
		248 9 0
		£643 15 0

LIBRARY

Donations, to December 31st, 1894	- - - - -	£119 1 0
Dividends	- - - - -	42 0 0
Balance at Bankers, January 1st, 1894	- - - - -	258 0 0

£420

SUMMARY

Revenue Account	- - - - -	£7,704 15 0
Capital	- - - - -	643 15 0
Library	- - - - -	420 0 0

£8,768 15 0

ASSETS AND

Balance at Bankers on December 31st, 1894	- - - - -	£754 15 0
Value of Furniture and Books	- - - - -	4,874 15 0
Value of Investments—		
£5,103 17 7	2½ % Consols, at 103½	5,282 10 0
9,080 7 11	2½ % Consols, at 10½	9,211 0 0
(Penfold Fund) 503 1 11	India 3 %, at 103½	520 10 0
(Beadel Fund) 190 0 0	Midland Railway 3 % Debenture Stock at 112	212 10 0
(Crawler Fund) 254 0 0	North British Railway No. 1 Preference, at 128	325 0 0
1,545 0 0	Great Eastern Railway 4 % Debenture Stock, at 143	2,209 0 0
2,006 0 0	London and North Western Railway 3 % Debenture Stock, at 113½	2,276 10 0
7,900 0 0	India 3½ %, at 110	8,690 0 0
Subscriptions and Entrance Fees due, but unpaid to date	- - - - -	362 3 0
Fees for use of Rooms due, but unpaid to date	- - - - -	32 1 0
Value of Premises, Nos. 12 & 13A, Great George Street	- - - - -	6,900 0 0

£41,651 15 0

Cr.

1894.	EXPENDITURE.	£	s.	d.	£	s.	d.
ent	-	-	-	-	373	15	5
ates, Taxes, and Insurance	-	-	-	-	220	2	10
orporation Duty	-	-	-	-	46	13	3
uel, Light, and Water	-	-	-	-	111	12	10
repairs, Furniture, and Fittings	-	-	-	-	-	-	-
ationery, Postage and Receipt Stamps, Books of Account, Publications, &c.	-	-	-	-	-	-	-
alaries of Secretary and Staff	-	-	-	-	1,787	10	0
ousekeeper's Wages and Allowances	-	-	-	-	140	0	0
Household Effects, Housekeeper's Petty Cash Expenses, and Sundry Disbursements	-	-	-	-	-	-	-
Examinations—Examiners' Fees, &c.	-	-	-	-	£257	17	0
Printing, Lithography, Hire of Instruments, and Sundry Disbursements	-	-	-	-	264	4	6
Prizes	-	-	-	-	-	-	-
Less Candidates' Fees, Division III.	-	-	-	-	229	19	0
" " Forfeited	-	-	-	-	302	8	0
" Sale of Examination Syllabus	-	-	-	-	31	17	0
Publication of "Transactions"—Printing and Lithography	-	-	-	-	457	0	6
Binding	-	-	-	-	14	10	3
Reporting	-	-	-	-	89	18	0
Less Sale of "Transactions"	-	-	-	-	22	4	11
Publication of "Professional Notes," Printing and Lithography	-	-	-	-	388	4	4
Less Sale of "Professional Notes"	-	-	-	-	12	2	6
Provincial Committees—Printing and Sundry Disbursements	-	-	-	-	-	-	-
Purchase of Stock—£1,500 India 3 % Stock	-	-	-	-	-	-	-
General Printing	-	-	-	-	-	-	-
Law Charges and Advertisements	-	-	-	-	-	-	-
Forestry Collection	-	-	-	-	-	-	-
Cash at Bankers, December 31st, 1894, and in hands of Secretary	-	-	-	-	-	-	-

Purchase of Furniture and Fittings	-	-	-	-	-	-	-	-	-	-	-	£8	0	0
Transferred to Revenue	-	-	-	-	-	-	-	-	-	-	-	450	0	0
Gold and Silver Medals (Penfold Prize)	-	-	-	-	-	-	-	-	-	-	-	16	18	6
Balance at Bankers, December 31st, 1894	-	-	-	-	-	-	-	-	-	-	-	168	16	7
												£643	15	1

Purchase of Books -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	£29 14 0
Printing (New Catalogue)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	225 0 0
Binding -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3 19 6
Forestry Collection, &c.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	120 9 8
Balance at Bankers, December 31st, 1894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40 16 11
																	£420 0 1

Revenue Account	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	£7,159 15 8	
Capital "	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	474 18 6	
Library "	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	379 8 2	
Balances at Bank,	December 31st, 1894, and Petty Cash in the hands of the Secretary															-	-	754 18 0
																	£8,768 10 4	

One Quarter's Rent to Christmas 1894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	£96	5	0
Printing and various Accounts unpaid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	497	14	8
Balance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41,057	18	6

£41,651 18 9

H. C. NEWMARCH, } *Auditors.*
GEORGE CADELL, }

April 30th, 1895.

APPENDIX TO VOL. XXVII.

Obituary.

THOMAS BUCHAN (Fellow), of Balhousie, Largo, Fifeshire, and Dundee, joined the Institution as a Fellow early in 1870, and remained a Member of it up to the time of his death, which occurred at Balhousie on July 27th, 1894, in the 73rd year of his age. Although not professionally trained as a Surveyor, Mr. BUCHAN commenced business early in life as a Valuator, and soon, by his keen common sense and shrewd practical judgment, established an important business. In 1864 he was elected a Member of the Town Council of Dundee, and from that date took an active share in the affairs of the burgh. He was appointed Provost and a Magistrate in 1867, and held many other municipal and local offices. In the carrying out of all the important works connected with the burgh of Dundee during the last quarter of a century he took a prominent part, and was actively engaged in the arrangement of the various questions between the Railway Company and the Town and Harbour of Dundee during the construction of the first Tay Bridge. His services as an "arbiter" and "oversman" in arbitration were frequently sought, not only in railway cases, but also in agricultural disputes, in questions regarding damage from mineral workings, in connection with various water schemes, in the matter of the widening and deepening of the Clyde, the Leith Purification Scheme, and many other matters of the kind.

He was frequently employed in the preparation of Par-

liamentary Estimates of the value of lands to be taken, and of severance damage, in the Counties of Forfar, Perth, and Fife, and appeared as a witness before both Houses of Parliament in connection with Bills for the construction of railways, waterworks, sewerage schemes, &c.; being concerned for the Forth Bridge and Railways, Seafeld Dock and Railway, the Kirkealdy Railway, the Dundee and Arbroath Joint Railway Ownership, the Edinburgh Sewerage Extension, and other schemes. He was, in fact, engaged in every arbitration of importance in Scotland during the last twelve years of his life, and was a typical example of the class of surveyor who succeeds without any early advantages, achieving by sheer hard-headedness and uprightness of character a conspicuous position among his contemporaries.

RICHARD CLARKE (Fellow) was concerned in much important work in Birmingham in connection with the valuation of the parish for the overseers, whose assessor he became in 1876, in succession to his father, holding the position until within a short time of his death. After about 18 months' work he completed a valuation of the whole parish in 1886, with the result that the assessments were increased by the sum of £113,000. There were a great number of appeals, but Mr. CLARKE on the whole sustained his assessments, notably in the case of a great appeal by the L. & N. W. Railway Company. He was, happily, a man whose opposition left no ill-feeling behind it—his frankness, candour, and generosity gained him many friends, and those who knew him best liked him most. At the time of his father's death in 1876 the rateable value of Birmingham was £899,944, and when he terminated his connection with the parish of Birmingham in 1893 the rateable value was £1,255,421. He was taken ill early in November 1894, and died at the end of the same month.

THOMAS CHATFEILD CLARKE (Past-President) was born at Newport, in the Isle of Wight, in the year 1829. He was educated at home by a private tutor, came to London in his nineteenth year, and, after spending a year in the workshops of Messrs. LAWRENCE & SONS, in order to acquire a practical knowledge of building, was articled to Mr. RICHARD TRESS, a well-known Architect and Surveyor in the City. He commenced practice in 1855, near what is now known as Cannon Street, subsequently removing to Leadenhall Street, and thence to the present offices of the firm, 63, Bishopsgate Street Within. He quickly acquired an extensive practice as an Architect and Surveyor, at once securing a share of the responsible and lucrative compensation work arising out of the many railway and other enterprises which characterised that halcyon period for surveyors. A large list might be compiled of his works as an Architect in London and elsewhere, some of them buildings of considerable importance and all of them of acknowledged architectural merit. The just subordination of external ornament to practical utility was a noticeable feature of all his designs. This was especially the case in the Model Dwellings which he erected. In these he took the deepest interest. Indeed, the better housing of the working classes engaged his anxious attention long before Parliament troubled itself with the question, and he laboured diligently to call attention to their condition. He was among the first to associate himself with the question of Elementary Education, becoming in 1870 a member of the first School Board for London.

Mr. CLARKE was, for many years, Surveyor to the Fishmongers' Company, of which he was a Liveryman, and also acted in the same capacity for the Cordwainers' Company. He was elected a Fellow of the Royal Institute of British Architects in 1872, and was one of the founder Members of The Surveyors' Institution, on its establishment

in 1868. He was first elected a Member of the Council of the Institution in May 1872, became a Vice-President in May 1888, and President in May 1894. He was appointed by the Council in December last as their first representative on the new Tribunal of Appeal created by the London Building Act, 1894, but the rapid failure of his health necessitated the appointing of a temporary substitute in April last. As a matter of fact, he took no part in the proceedings of the Tribunal beyond assisting in its organisation and in the framing of its Rules of Procedure.

In ordinary course his name would have appeared on the balloting list for re-election as President of the Institution for a second period of office, but the rapid progress of a cruel internal malady, which first manifested itself some eighteen months ago, compelled him to retire from a position which had been one of the ambitions of his life, but the duties of which he felt he could no longer discharge with the conscientious thoroughness which he brought to bear on everything he undertook. Mr. CLARKE made but three contributions to the "Transactions," the first in April 1868, entitled "A Revision of the Progress made in providing "Improved Dwellings for the Industrial Classes," the second, a Paper read in April 1884, entitled "Improved Dwellings "for Labourers and Artizans"—both of them, it will be observed, dealing with a problem in which he was most deeply interested, and the solution of which he regarded as vital to the preservation of the whole institution of private property. His third contribution to the "Transactions," the Address with which he opened the Session in November last, came as a surprise to those familiar with his strenuous political views, but less acquainted with the strict limitations he imposed upon them in their relation to the fundamental arrangements of civilised society. He made no attempt in it to disguise his zeal as a social reformer, but he shewed, with a little less than his usual reserve, that the violent

philanthropy of the "young men who dream dreams" had no attraction for his practical mind.

An ardent Liberal in politics, by the natural constitution of his mind, he inevitably found himself, on occasions, at variance with those whose sympathies were, perhaps, somewhat less altruistic than his own; but he was fearless of consequences, and manfully maintained his opinions even when his professional interests ran counter to them—as severe a test as principles can well be put to.

As a man of business he had few superiors, even in a profession which demands the highest qualifications in this respect. He had the faculty, displayed in a very marked degree during his tenure of office as President of the Institution, of conducting difficult deliberations to a successful issue by a mixture of suavity, firmness, and tact not often found in combination.

MR. CLARKE was a man of warm sympathies and generous impulses, but his natural geniality was perhaps masked, except to his intimates, by a rather old world formality of manner easily mistaken for reserve by those out of sympathy with his views.

He possessed what is called the "public conscience"—the sense of the citizen's duty to the State—to a degree rarely met with in private life, and seldom spoke or acted without some reference to his ideals on this subject.

MR. CLARKE was a man of high natural ability, but it was as a speaker rather than a writer that he was at his best. As a writer his style was somewhat encumbered by qualifications, due to a desire to avoid offence. As a speaker he was clear and incisive, a little emotional at times, but always magnanimous and courageous. There are few who have done greater service to the Institution or have laboured more unselfishly to advance its interests, and to keep the best professional traditions to the fore. It will be remembered that his latest official act was to write a letter

to the Secretary (reprinted in the Report of the Annual Meeting on page 436 of this volume), to accompany the gift of a valuable gold chain to be worn by his successors in office with the Presidential badge presented by Mr. DRIVER three years ago.

Mr. CLARKE made three unsuccessful attempts to enter Parliament, standing for Poole in 1884, for Hammersmith in 1885, and for Grantham in 1892, and just missing success on two out of the three occasions by a small number of votes. There is no doubt that he felt the keenest disappointment, but he bore his ill success with stoicism and without ascription of unworthy motives to his opponents. His duties as a Justice of the Peace for the county of Southampton and the borough of Newport, Isle of Wight, where he had a country residence, afforded him one of many channels for the expenditure of any surplus energies left him by the claims of a large professional practice, and he rarely missed a sitting of the Bench during his periods of residence at Wootton Common.

Mr. CLARKE died of internal cancer, after undergoing an operation, too long deferred, at his house in Westbourne Terrace, on Friday, the 28th of June, in the 66th year of his age, and was buried at Highgate on Wednesday, July 3rd.

GEORGE JAMES COX (Fellow), of Cheltenham, who was elected a Fellow of the Institution on February 13th, 1882, died at Bournemouth in October 1894, at the age of 63. He received his early professional training in the office of Messrs. JAMES HUMPHRIS & SON, and entered into partnership with Messrs. ENGALL in 1867. He held many municipal offices in Cheltenham, and was a director of several important local companies.

JOHN WILLIAM DALE (Fellow), who died on 26th June, 1895, of pneumonia and heart failure following

influenza, at the age of 47, was the second son of Mr. THURSTON G. DALE, Solicitor, Lincoln. Educated at Tonbridge, he proceeded to St. John's College, Cambridge. He took his B.A. degree in 1870, and the same year achieved the distinction of a seat in the winning boat, and a place in the winning eleven in the University contest.

In 1872 Mr. DALE entered the office of the late Mr. EDMUND JAMES SMITH (Past-President), by whom he was proposed as a member of the Institution in 1875. Under the personal instructions of such a past-master in the art of negotiation it is needless to say that Mr. DALE had exceptional opportunities of making himself acquainted with the varied details of land agency and of estate management.

Shortly before Mr. E. J. SMITH's death Mr. DALE became a member of the firm of SMITHS, GORE, & Co., of which Mr. SPENCER W. GORE and Mr. HENRY L. INGRAM are the present partners. He thereafter took a larger share in the extensive agency work of the firm. He was an occasional speaker at the Institution Meetings, and made several contributions of value to the "Professional Notes." He was transferred to the Fellowship in 1884.

On the outbreak of the opposition to the payment of tithe rent-charge in Wales, Mr. DALE threw himself, with characteristic energy, into the defence of the tithe-owners' rights, as representing the Ecclesiastical Commissioners. He organised more than one "campaign" in the "war," bivouacking with the small detail of troops who protected the distraining agents, and himself serving "ten days" notices, and executing warrants among the mountains before even the early-rising tenants of those parts were awake. The work was not congenial, but in the way of duty it was done with indomitable pluck and perseverance.

These proceedings proved that the old methods of recovery of tithe were unequal to such a strain, and the Act of 1891 was the final outcome of the agitation.

Mr. DALE, more recently, took charge of the firm's agencies in the North of England, and was actively engaged up to the last in plans for developing building property in South Shields and elsewhere. To the end he retained his interest in athletic sports, and many important occasions at "Lords" found him, when the exigencies of business permitted, among his old friends.

GEOFFREY OSWALD FORMBY (Fellow) was originally an engineer, and was employed in that capacity by the late Mr. THOMAS A. WALKER, the well-known Contractor, and on the "Inner Circle Completion" Railway Works. Mr. FORMBY, until a year or two before his death, acted as sole agent to the Earl of GAINSBOROUGH's Estates in Rutland and Gloucester, but latterly migrated to the Lowther Estates near Penrith. He was elected a Fellow of the Institution in May 1891, and died at Liverpool in the summer of last year.

HENRY HAMILTON (Fellow) received his professional training as an assistant in the office of Mr. JOHN PAYNTER, in whose employment he remained for 17 years, when he commenced practice on his own account as a Surveyor and Land Agent at 64 & 65, Coleman Street, E.C. He was sole agent for the extensive estates of the Rev. SAMUEL PAYNTER in London, Cornwall, and Berkshire, and held many other appointments of a similar kind. He was elected a Fellow of the Institution on the 16th of January, 1882, and died, after a brief illness, on the 9th of October, 1894.

ROBERT WILKS MANN (Fellow), head of the firm of R. W. MANN & SON, was born at Westminster in 1831, and was educated at King's College School. Mr. MANN commenced his professional life in the estate office of

MESSRS. TROLLOPE & SONS, in which firm he ultimately became a partner, acquiring, in the course of his 30 years' experience, an exceptional knowledge of large country estates and of West End property in London. About 10 years before his death he was suddenly stricken with paralysis in the midst of an active and successful business career, his powers gradually declining until his death in October last. Mr. MANN was the author of a Paper on "The Enfranchisement of Urban Leases," read before the Institution on 12th January, 1885, and occasionally took part in the discussions. He was a man of most restless energy, a keen politician, and an ardent sportsman, and possessed qualities of frankness and geniality which endeared him to a very large circle of friends. Mr. MANN was elected a Fellow of the Institution in January 1875, and was also a member of the Committee of the Estate Exchange, and of various other bodies.

JAMES MURGATROYD (Fellow), Architect and Surveyor, of Manchester, was a member of perhaps the oldest firm of Architects in that district. He was born at Ardwick, Manchester, on the 3rd January, 1830, and was consequently within a few days of being 65 years of age at the time of his death. As a boy he was educated at the Chorlton High School, on leaving which he was sent to the Handels Schule, Leipzig. After leaving Leipzig he returned home and commenced his business career. He at once obtained a seat in the office of Mr. ALEXANDER W. MILLS, who was then a rising Architect in Manchester, and to whom his parents were known, and a very close intimacy then commenced between master and pupil, which continued without intermission up to the day of his death. At the termination of his articles he, by the advice of his friend and master, Mr. MILLS, travelled for a couple of years on the Continent. On his return he contemplated commencing

practice on his own account, but ultimately joined his old master, and in 1853 the firm, originally "ALEXANDER W. MILLS," became "MILLS & MURGATROYD," the partnership thus commenced terminating in 1881.

The business, which was established by Mr. MILLS in 1838, had already at the date of the partnership attained considerable importance; and amongst other works in hand at that time was the extension of the Exchange Building in Manchester—afterwards, by letters patent, "The Royal Exchange"—and in this work particularly he as a young man took a lively and active interest, as also in the subsequent works connected with the alteration and the reconstruction in or about the year 1860. Many important works were carried out by the firm, which very deservedly secured a considerable share of the work in and about Manchester. The joint station of the London and North-Western and the Manchester, Sheffield, and London Railways at London Road was perhaps one of the most important buildings erected by it; also the extensive buildings belonging to the Poor Law Guardians of the township of Manchester. The Manchester Grammar School, with its very complete Gymnasium; the High School for Girls, and the large building erected originally for a warehouse, and now known as the Grand Hotel; the Manchester and County Bank, and most of its branches in the surrounding towns, were also erected by the firm.

Mr. MURGATROYD's Continental education and travels gave him considerable advantages, as he could converse fluently in German and French, and almost as well in Italian. His knowledge of mathematics was considerable. He was always greatly interested in educational matters connected with the profession, and was for many years actively engaged in the management of the School of Art and the Technical Schools, and was one of the committee appointed by the Corporation to visit the Continent for the

purpose of collecting information preparatory to arranging for the building of the extensive technical schools which will shortly be commenced in Manchester.

For many years past Mr. MURGATROYD was largely engaged in valuing properties, more particularly in connection with the city improvements. He acted as umpire or arbitrator in a considerable number of disputed cases, in which his clearness of judgment was invaluable.

Mr. MURGATROYD was elected a Fellow of the Institution on February 25th, 1889, and took great interest in its welfare.*

ALBERT WOODWARD PARRY (Fellow) was born on the 19th of January, 1834. On leaving school he was articled to Mr. THOMAS TIDMUS SMITH, Architect and Surveyor, of Manchester. From 1854 to 1863 he was chief assistant in the offices of the Borough Surveyors of Salford, Blackburn, Scarborough, and Preston successively. In 1863 he entered the service of the Bradford Corporation in the Borough Surveyor and Waterworks Engineer's Department, and was engaged on important work in connection with the carrying out of the scheme of main sewers for the Borough, in the laying out and making of street improvements, and in the routine of the office. During the eight years he was in the service of the Corporation, the Barden reservoir at Bolton Abbey, the Doe Park reservoir at Denholme, and other important and well-known reservoirs were constructed, and the original scheme of the Bradford Waterworks was designed.

Mr. PARRY was appointed Borough Surveyor to the Corporation of Reading in September 1871, with the duties of which post was included the management of the waterworks.

* Reprinted, with variations, from the *Journal of the Royal Institute of British Architects*.

From 1891 Mr. PARRY acted as Consulting Engineer to the Corporation of Reading. In the autumn of 1893 he accepted a temporary engagement at Norwich, to act during the illness of the Engineer of that city, but in the following spring his own health broke down, and he was obliged to relinquish work. He returned to Reading, but the disease from which he was suffering became gradually worse, and he died on the 13th of July, 1894.

JAMES RAWLENCE (Fellow), senior partner in the firm of RAWLENCE & SQUAREY, of Salisbury, and 22, Great George Street, Westminster, was born at Fordingbridge, Hampshire, where his father was a farmer, in the year 1810. He was the founder of the well-known firm above referred to, and long played an important part in agricultural matters in the South and West of England. He was specially known as the original breeder of the improved Hampshire or "West County Down" sheep, and as a land agent of the highest standing and the widest experience in the twenty counties over which the business of his firm extends. He was regarded as one of the highest authorities not only on the value of land but on all the intricate questions arising between landlords and incoming and outgoing tenants, and in connection with compensation for improvements. Mr. RAWLENCE joined The Surveyors' Institution in 1870, and was, consequently, one of its oldest Members. He was also for many years a Member of the Council of the Royal Agricultural Society of England, and an Honorary Member of the Surveyors' Club. Amid his many avocations, he found leisure to indulge his favourite tastes as a botanist and naturalist, and was the possessor of a fine collection of British birds, especially of the hawk tribe. He was a man of the most winning personality, and was held in the highest esteem by a multitude of friends. Notwithstanding his great age, he took an active interest in

the work of his firm until within a few days of his death, which supervened on an attack of acute bronchitis in his 84th year, on the 15th of September, 1894, at his residence, Bulbridge House, Wilton, Salisbury.

WILLIAM ROSSER (Fellow), of Rhydlynelig, Sketty, was born about the year 1825, at St. Clears, near Carmarthen. It was 35 years ago that he made his first appearance in public life, when he became Agent to Sir JOHN STEPNEY. The estate at that time was in almost a primitive state, but, with that keen perception and unwavering belief in its future development which were such marked characteristics in his after life, Mr. ROSSER took in hand the great work of laying the foundations, so to speak, of the town of Llanelly. In this work he was eminently successful. During the 25 years he acted as Agent for the Stepney Estate, his steady aim was the promotion of every good scheme that would add to the commercial and industrial importance of the town. For years he was one of the leading proprietors of the Burry and Old Lodge Tin-plate Works. His activity was untiring in raising the level of education in the Llanelly district. For many years he was the guiding spirit of the Llanelly Local Board and Harbour Commission, occupying the chair for a considerable time. In 1882 he removed from Llanelly to Swansea, choosing the neighbourhood of Sketty for his residence. When the Bankruptcy Act came into force he was appointed Official Receiver for the Swansea district. Having held this appointment for a number of years he resigned the position in order to conduct an important colliery business. Shortly after his removal to Swansea he was appointed Justice of the Peace for the counties of Carmarthen and Glamorgan.

Mr. ROSSER was one of the first Members of the Institution, having been elected in August, 1868—the year of its foundation. His death took place in December 1894.

HENRY SPURLING (Fellow) was born at Shotley, in Suffolk, in 1838. In 1870 he became a partner with his father and brother in the business of SPURLING & SONS, of Ipswich. In addition to his professional work he farmed over 800 acres of land, and was an enthusiastic breeder of horses, cattle, and sheep. He was elected a Fellow of the Institution in February 1884, and was a member of several important agricultural bodies, and took great interest in farming matters in his native country. His death took place in June 1894.

PHILIP DEBELI. TUCKETT (Fellow) came of a well-known West of England family. He was born in 1833, and educated at Grove House, Tottenham, a school at which were trained many other members of the Society of Friends, to which he belonged through life. He was articled in 1850 to Mr. WILLIAM STURGE, of Bristol, Past-President of the Institution. In 1858 Mr. TUCKETT became an assistant to the late Mr. JAMES BEADEL, M.P., where his early training in agricultural science served him in good stead. The perfect grasp which he had of the subject was shewn in frequent and important successes in the Examinations of the Royal Agricultural Society, and elsewhere. He opened an office on his own account in Old Broad Street in 1862, and in the course of a few years his name became well known in connection with the development of valuable building estates, and the agency of important town estates. In due course he became a familiar figure in assessment and compensation cases, and, in fact, wherever the value of property was the subject of inquiry. He was one of the Surveyors of the Board of Trade. In 1868—that is to say, in the year of its foundation—Mr. TUCKETT joined The Surveyors' Institution, and was, from that time forward, one of its most active Members.

Until within a year or so of his death Mr. TUCKETT was

a frequent attendant and speaker at the Ordinary General Meetings of the Institution. He contributed two Papers to the "Transactions," separated from each other by the wide interval of 24 years. The first of these Papers, entitled "The Art of Valuing Agricultural Land," was read on 22nd March, 1868; the second was read in January 1892, and was entitled "A Short Explanation of the Proposed Bi-Metallism as it would affect British Interests." This Paper, which cost him much labour, was a masterpiece of close and careful reasoning from his point of view, and may be taken as a measure of his very considerable powers as a dialectician. On the establishment of the "Professional Notes" Mr. TUCKETT at once became an eager contributor. It mattered little what the subject was: he was equally ready with arguments, precedents, and illustrations in support of his views. His distinctions might at times be regarded as a little too fine drawn, for the constitution of his mind was distinctly forensic, but no one could fail to be impressed by the extreme facility with which he could marshal facts in support of any position he took up, and by his faculty of lucid exposition. In his annual article in the "Notes," entitled "Landed and Property Interests in Parliament," his peculiar powers were perhaps shewn at their very best. What, in some hands, would be but a dry analysis of Bills and Statutes, in his became an interesting and instructive commentary on actual and prospective legislation, enlivened by many characteristic touches and not a little covert humour.

As a Member of the Estates Exchange Committee and the Auctioneers' Benevolent Fund Mr. TUCKETT did some useful work. He was Vice-President of Charing Cross Hospital, one of Her Majesty's Lieutenants of the City of London, a Member of the Royal Institution, a Fellow of the Geological Society, a Member of the Royal Agricultural Society, a Fellow of the Royal Geographical Society, and

Chairman of the North and South Western Junction Railway Company. He married a daughter of the late Mr. ALFRED Fox, of Falmouth, in 1867, and leaves three sons.

Mr. TUCKETT seemed in his usual vigorous health until the autumn of last year, when unfavourable symptoms manifested themselves in connection with the arteries of the brain. After a long illness, ending in total blindness, and borne with exemplary resignation, he passed away at his residence, Child's Hill House, Hampstead, on the 24th of July, 1894.

FRANCIS VIGERS (Honorary Member) was the second son of the late Mr. EDWARD VIGERS, of Kennington, Surrey, and was born in the year 1820. He commenced business in Chancery Lane, but afterwards went into partnership with the late Mr. HEWETT DAVIS, of the Haymarket, subsequently removing to 3, Frederick's Place, Old Jewry, where, shortly after the retirement of Mr. DAVIS in 1860, Mr. ROBERT VIGERS, who had been previously articled to him, joined him in partnership.

Mr. VIGERS soon acquired an extensive practice as a surveyor, his very great business aptitude, his clear, calm judgment, and his inflexible integrity, attracting the notice of many large firms and companies needing professional services.

In addition to the numerous occasions on which he was selected as umpire he was associated, either as regular professional adviser, or in the capacity of arbitrator or witness, with the following undertakings, among others:—The London, Chatham, and Dover Company's Metropolitan Extension, the Sevenoaks Railway Company, the Crystal Palace and South London Junction Railway Company, and all the subsidiary railways connected with the London, Chatham, and Dover system.

He also acted for Her Majesty's Government in connection with the Fortifications Act and Naval Docks and Public Offices, for the East and West India Docks Company, the London and St. Katherine's Docks Company, the Metropolitan Sewage and Essex Reclamation Scheme, the New Street Improvements of the Metropolitan Board of Works and the Commissioners of Sewers. He was also retained on several occasions by the Corporations of London, Bradford, Manchester, Sheffield, Bristol, and Reading. He carried out several large enfranchisements under the Copyholds Acts, and was appointed by Act of Parliament to value the interests of the Crown lessees' gardens at Whitehall affected by the construction of the northern embankment of the Thames.

In his capacity as a Surveyor to the Board of Trade he acted as valuer and umpire in important cases connected with the Great Western, the Midland, the London and South Western, the Great Northern, the South Eastern, the Metropolitan, the Metropolitan District, and the North London Railway Companies.

Mr. VIGERS was one of the Founder Members of the Institution. He attended the preliminary meeting, held on the 23rd of March, 1868, out of which the Institution originated. He was appointed a Member of the first Council, retaining his seat until the date of his retirement, through ill-health, in 1893, when he had attained to the position of Senior Vice-President, and was next in succession to the Presidency. The Council thereupon decided, in order to mark their sense of his great services to the Institution, to transfer his name to the list of Honorary Members, a distinction, however, which he did not live long to enjoy.

Mr. VIGERS died at Hersham, Surrey, on the 14th of February last, of acute bronchitis, following an attack of influenza.

LIBRARY.

DONATIONS OF BOOKS, MAPS, &c.,

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DONORS.	TITLE OF WORK.
Adams, H.	{ "The Practical Designing of Structural Ironwork."
Agent-General of New South Wales	{ "Report of the Department of Public Works, New South Wales," 1892.
<i>Agricultural Gazette</i> , Editor of the	{ "The Agricultural Gazette," 1894-95.
<i>Architect</i> , Editor of the	{ "Architect," 1894-95.
Barry, D. H.	{ Pamphlet on "Small Holdings."
Barry, J. Wolfe	{ Lecture on "The Tower Bridge."
Bath and West of England Society, Council of	{ "Journal." Vol. 5.
Bathurst, C.	{ "The Agricultural Students' Gazette," 1882 to 1894.
<i>Bell's Weekly Messenger</i> , Editor of	{ "Bell's Weekly Messenger," 1894-5.
Boston Public Library, Trustees of	{ 42nd Annual Report, 1893.
Bridge House Committee of the Corporation of London	{ "History of the Tower Bridge and of other Bridges on the Thames built by the Corporation of London."
<i>British Architect</i> , Editor of the	{ "The British Architect," 1894-95.
<i>Builder</i> , Editor of the	{ "The Builder," 1894-95.
<i>Building News</i> , Editor of the	{ "The Building News," 1894-95.
Cates, A.	{ Papers relating to the International Congress of Hygiene and Demography at Buda-Pesth.
Chartered Institute of Patent Agents	{ "Transactions," 1894-95.
Cobham, G. R.	{ "Forest of Essex." By W. R. Fisher.
Colyer, F. C.	{ "Pumps and Pumping Machinery." "Hydraulic Lifting Machinery."
Crosby Lockwood & Son	{ "Tramways, their Construction and Working" By D. K. Clarke "Mechanics and Architecture." By E. W. Tarn.
Davis, A. T.	{ Bingley's "North Wales." 2 vols. 1804.

- Dicksie, B. "London Building Act, 1894."
- English Arboricultural Society { "Transactions," 1894.
- Estates Gazette*, Editor of the { "The Estates Gazette," 1894-95.
"Diary and Directory for the use of
Surveyors, Auctioneers, and Estate
Agents for the year 1895."
- Evans, C. L. { R. B. Wheler's "History and Antiquities
of Stratford-on-Avon."
- Farmers' Club "Journal," 1894-5.
- Field*, Editor of the "The Field," 1894-5.
- Fletcher, Bannister { Treatise on "Quantities, a text book for
Surveyors." 6th Edition.
- Forbes, W. "Timber Valuers' Companion."
- Foulkes, S. G. { "Historical Memoirs of the Town and
Parish of Tiverton, 1790." By D.
Dunsford.
- Grey, C. G. { "Registration of Title and Registration of
Assurances." By H. B. Leech.
- Harwood, Sir J. J.... .. { "History and Description of the Thirl-
mere Water Scheme."
- Horticulture, Journal* of, Editor of the { "The Journal of Horticulture," 1894-5.
- Hudson, A. B. "The Tower Bridge." By T. E. Tint.
- Institution of Civil and Mechanical Engineers { "Transactions," 1894-5.
- Institution of Mechanical Engineers { "Proceedings," 1894-5.
- Institution of Civil Engineers { "Proceedings," 1894-5.
- Invention*, Editor of "Invention," 1894-95.
- Institute of Surveyors of New South Wales { "Journal," 1894.
- Iron*, Editor of "Iron," 1894-95.
- Italian Minister of Public Works { "Journal of the Civil Engineers of Rome,"
1894-5.
- Kinch, E. "Field Experiments," 1894.
- Land and Water*, Editor of "Land and Water," 1894-5.
- Land Agents' Record*, Editor of the { "Land Agents' Record," 1894-5.
- Land Valuation Assessors for Scotland { "Transactions," 1894-5.
- Lockwood & Co. { "Builder's and Contractor's Price Book,"
1895.
- London County Council { "The London Building Act, 1894, with
the By-Laws and Regulations at present
in force in relation to Buildings in
London."

- Ludlow, W. R. Treatise on "Zululand."
- Macer, A. T. Pamphlet on "Betterment."
- Macgregor, G. W. "Ways and Works in India."
- Martin, A. J. { Collier's "History of Essex."
Palm's "History of Stafford and its
Neighbourhood."
Winstone's "Extracts from the Minutes
of the Epping and Ongar Highway
Trust."
- Maughan, T. Pamphlet—"How Trees grow."
- Maxwell, W. H. { Treatise on "Drainage Work and Sanitary
Fittings."
- Middleton, R. E. "Practical Observations on Tacheometry."
- Mitchell, G. S. { Handbook on "Land Drainage."
Pamphlet on "Practical Stack Ensilage."
- Monson, H. F. { Pamphlet on "Manure Valuation on the
Unit System."
"Report of a Series of Experiments of
the Use of Manures on Hops during
the Year 1894."
- North of England Institute
of Mining and Mechanical
Engineers... .. { "Transactions," 1894-5.
- Parkin, J. R. { "A Lithographic Sketch of the North
Bank of the Thames, with Suggested
Improvements." By Lieut.-Col. French,
1825.
- Property Market Review*,
Editor of the { "The Property Market Review," 1894-5.
- Queensland Branch of the
Royal Geographical So-
ciety of Australia { "Proceedings." Vol. 9.
- Redman, J. H. { "Law of Landlord and Tenant." By
J. H. Redman and G. E. Lyons.
"Agricultural Holdings Act, 1883." By
J. H. Redman.
"Law of Husband and Wife." By J. H.
Redman.
"Law of Bills of Sale." By G. E. Lyons
and J. H. Redman.
- Royal Agricultural Society
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- Royal Engineers' Institute "Professional Papers." Vol. 20.
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- Royal Institute of British
Architects { "Journal," 1894-95.
- Royal Scottish Arboricul-
tural Society { "Transactions." Vol. 14.
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Sanitary Institute...	...	"Transactions and Journal," 1894-95.
Schooling, W.	...	{ Bourne's "Handy Assurance Directory," 1895.
Searle, C. H.	...	{ "The Quantity Surveyor." Parts 1, 2, 3, 4, 5, and 6.
Skeat, A. P....	...	"Cassell's Natural History." 6 vols.
Société des Géomètres of France	...	{ "Journal," 1894-95..
Society of Engineers	...	"Transactions," 1894-95.
Spon, E. and F. N.	...	{ "Engineer's Diary and Year Book." "Architect's and Builder's Price Book," 1895.
<i>Surveyor</i> , Editor of the	...	"The Surveyor," 1894-95.
Swain, E.	...	{ "Quarterly Journal of the Geological Society." Vols. 197, 198, 199, and 200.
Tiffen, J. H.	...	"Collection of Grass Specimens."
<i>Timber Trades Journal</i> , Editor of the	...	{ "The Timber Trades Journal," 1894-95.
Will, J. Shiress, Q.C.	..	{ "Michael and Will on the Law relating to Gas, Water, and Electric Lighting." 4th Edition. 1894.
Wilson, F. P.	...	{ "Handbook of Auction Law." By W. A. Pocock.

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THE SURVEYORS' INSTITUTION

(INCORPORATED BY ROYAL CHARTER),

12, GREAT GEORGE STREET, WESTMINSTER, S.W.

LIST OF MEMBERS, JULY 1st, 1895.

Honorary Members.

*Date of Election
and of Transfer.*

1895, Jan. 21	BEDFORD, HIS GRACE THE DUKE OF	15, Belgrave Square, S.W.
1893, Mar. 20	CARRINGTON, THE RIGHT HON. LORD, G.C.M.G.	4, Whitehall Court, S.W.
1889, Dec. 9	CHAPLIN, THE RIGHT HON. HENRY, M.P.	Blankney Hall, near Lincoln.
1887, Jan. 24	COBHAM, THE RIGHT HON. LORD VISCOUNT	Hagley Hall, Stourbridge.
1883, May 21	DEVONSHIRE, HIS GRACE THE DUKE OF	Devonshire House, Piccadilly, W.
1871, Jan. 30	GORE, CHARLES ALEXANDER, THE HONORABLE	West Side, Wimbledon Common, S.W.
A. '81, Mar. 21 H.M. '86, Mar. 8	GRANTHAM, SIR WILLIAM	100, Eaton Square, S.W.
A. '80, Dec. 13 H.M. '95, May 13	GULLY, THE RIGHT HON. WILLIAM COURT	Speaker's House, Palace of Westminster, S.W.
1889, Mar. 4	JERSEY, THE RIGHT HON. THE EARL OF, G.C.M.G.	43, Grosvenor Place, S.W.
1886, Jan. 11	KINGSCOTE, COLONEL SIR ROBERT NIGEL FITZHARDINGE, K.C.B. . .	34, Charles Street, Berkeley Square, W.
A. '69, Jul. 26 H.M. '71, Feb. 27	LEACH, LIEUT.-COL. SIR GEORGE ARCHIBALD, K.C.B.	6, Wetherby Gardens, South Kensington, S.W.
1885, Apr. 20	M'CLELLAN, JOHN B., M.A., THE REV.	Royal Agricultural College, Cirencester.
A. '69, Feb. 22 H.M. '94, Feb. 19	PHILBRICK, FREDERICK ADOLPHUS, Q.C.	88, Onslow Gardens, S.W.
A. '79, April 28 H.M. '92, Dec. 5	SMITH, HIS HONOUR JUDGE LUNLEY, Q.C.	57, Onslow Gardens, S.W.
1893, Jan. 9	WANTAGE, THE RIGHT HON. LORD, V.C., K.C.B.	Overstone Park, Northampton.
A. '71, Feb. 13 H.M. '94, Jan. 1	WHITE, HIS HONOUR JUDGE FREDERICK MEADOWS, Q.C. . . .	42, Sussex Gardens, Hyde Park, W.

Total number of Honorary Members, 16.

Fellows.

Diploma Number.	Date of Election and of Transfer.	The names of those Fellows who have qualified for the Class by Examination are distinguished by †	
1559	1889, Jan. 28	ABBEY, JOE BURMAN, A.M.I.C.E.	28, John William Street, Huddersfield.
1084	1884, Jan. 14	ABBOTT, ROBERT THOMAS G.	Whitley House, Malton, Yorkshire.
1499	1888, Nov. 26	ABBOTT, WILLIAM	{ 33, King William Street, E.C., and Holbe
2449	{ A. '91, Nov. 4 F. '95, Jan. 21 }	*ABRAMS, BENJAMIN PERCY . .	32, Cheapside, E.C.
1105	1884, Feb. 25	ADAMS, HENRY, M.I.C.E. . .	60, Queen Victoria Street, E.C.
1504	1888, Dec. 10	ADDIE, PETER	30, Winckley Square, Preston.
612	1881, Feb. 21	ADDIE, WILLIAM FORRESTER .	{ Powis Castle Estate Office, Welchpool, Md
1439	{ A. '88, Jan. 9 F. '91, Jan. 5 }	*†ADKIN, BENALIAH WHITLEY .	14, Queen Street, Cheapside, E.C.
664	{ A. '81, Dec. 19 F. '86, Dec. 8 }	ADKIN, CHARLES DUNCAN . .	Wantage, and Abingdon, Berks.
1479	1888, Apr. 30	ALLEN, GEORGE	Estate Offices, Stalbridge, Dorset.
1912	1891, Jan. 17	ALLPORT, WILLIAM	{ Bedford Mansions, Henrietta Street, Cow
2503	{ A. '92, Nov. 28 F. '93, Nov. 13 }	*AMOS, FRANK.	1, Parade, Canterbury, Kent.
597	{ A. '81, Jan. 10 F. '84, Mar. 10 }	ANDERSON, ROBERT, JUN. . .	The Barton, Cirencester.
1635	1889, Dec. 9	ANDREW, THOMAS HAWKES . .	Williton, Somerset.
1792	1890, May 29	ANDREWS, JOHN	13, Basinghall Street, E.C.
1634	{ A. '89, Nov. 25 F. '92, Nov. 14 }	*ANSCOMBE, ERNEST	14, Constantine Road, Hampstead, N.W.
2150	1891, Nov. 4	ANSELL, WALTER RAYMOND . .	88, London Wall, E.C.
287	1872, Dec. 9	APPERLEY, WILLIAM HAVARD .	Hereford.
198	1869, May 3	ARDING, CHARLES B., A.R.I.B.A.	22, Surrey Street, Strand, W.C.
1133	1884, Apr. 21	ARMISTEAD, RICH., A.M.I.C.E.	118, Main Street, Bingley, Yorkshire.
791	1882, Apr. 24	ARMSTRONG, THOMAS JOHN . .	14, Hawthorn Terrace, Newcastle-on-Tyne.
1730	1890, Feb. 24	ARMYTAGE, GEORGE JOHN . .	Kirklees Park, Brighouse, Yorkshire.
1506	1888, Dec. 10	ARNOLD, FRANCIS	Chilland, Winchester, and Hambledon, Hants.
1709	1890, Feb. 10	ARNOLD, WILLIAM	{ 23, George Street, Tamworth, and Grenv
1541	1889, Jan. 14	ASHDOWN, AUGUSTUS HARDING .	Uppington, Wellington, Salop.
1624	1889, May 13	ATKINS, SYDNEY GEORGE . .	The Hall, Coston, Wymondham, Norfolk.
2151	1891, Nov. 4	AULT, EDWIN	47, Victoria Street, Westminster, S.W.
2152	1891, Nov. 4	AUSTEN, FRANK	Marling Place, Wadhurst, Sussex.
1793	1890, May 29	AUSTIN, RICHARD	Bishop's Waltham, Hants.
1408	{ A. '87, Dec. 19 F. '91, Oct. 15 }	*AUSTIN, RICHARD, JUN. . . .	Bishop's Waltham, Hants.
404	1875, Nov. 8	AUSTIN, RUSSELL GARDENER . .	Hertford.
1913	1891, Jan. 17	AYNSLEY, ROBERT JOHN . . .	Gosforth, Newcastle-on-Tyne, Northumberland.
798	{ A. '82, Apr. 24 F. '90, Apr. 14 }	AYRES, CHARLES PRYOR . . .	52, High Street, Watford, Herts.

† Special Sanitary Science Certificate.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	
1914	1891, Jan. 17	BACON, FRANK MACE . . .	Attleborough, Norfolk.
1915	1891, Jan. 17	BACON, HORACE . . .	Attleborough, Norfolk.
140	{ A. '88, Nov. 2 } { F. '87, Feb. 7 }	BADCOCK, PHILIP . . .	9, Whitehall Place, S.W.
1767	1890, Mar. 24	BAILEY, HARRY DAVID CHINERY	Moretonhampstead, Devon.
665	{ A. '81, Dec. 19 } { F. '89, Nov. 11 }	BAILEY, LEONARD . . .	Estate Office, Scorton, Garstang, Lancashire.
2057	1891, May 23	BAILEY, WILLIAM SMITH . .	4, Kirkgate, Newark-upon-Trent.
1506	1888, Dec. 10	BAINBRIDGE, ROBERT STAGG .	Keversstone. near Staindrop, Durham.
2153	1891, Nov. 4	BAINES, MATTHEW TALBOT . .	Estate Office, Brodsworth, Doncaster, Yorks.
1005	{ A. '88, Dec. 17 } { F. '84, Dec. 8 }	BAIRD, JONATHAN PEEL . . .	Estate Office, Somerley, Ringwood, Hants.
2154	1891, Nov. 4	BAKER, JOHN . . .	High Street, Slough.
1690	{ A. '90, Jan. 6 } { F. '91, Dec. 7 }	*BAILL, WILLIAM ALFRED . .	Stoneleigh, Warwick Road, Ealing, W.
2155	1891, Nov. 4	BALLANTINE, EDWIN . . .	94-96, Cannon Street, E.C.
479	1877, Mar. 12	BALLS, JAMES MAYHEW . . .	Castle Hedingham, Essex.
1879	{ A. '90, Nov. 22 } { F. '93, Nov. 13 }	*BANCROFT, FREDERICK HERBERT	88, Mosley Street, Manchester.
1560	1889, Jan. 28	BANCROFT, HENRY, M.I.C.E. .	88, Mosley Street, Manchester.
2156	1891, Nov. 4	BANKS, JOHN . . .	Kendal, Westmoreland.
1916	1891, Jan. 17	BANKS, THOMAS . . .	60, King Street, Manchester.
606	1881, Feb. 7	BANNISTER, THOMAS . . .	Limehurst, Hayward's Heath, Sussex.
712	1882, Jan. 30	BARFIELD, FREDERIC HENRY .	56, Lancaster Road, Stroud Green, N.
1250	1885, Mar. 9	BARKER, CALEB . . .	Estate Office, Shadwell, Thetford.
1985	1891, Mar. 14	BARKER, HORACE RICHARD . .	25, Motcomb Street, Belgrave Square, S.W.
1661	{ A. '89, Dec. 9 } { F. '91, June 29 }	*BARNES, GEORGE FREDERICK .	{ Estate Office, Wingerworth Hall, near Chester-field.
983	1883, Dec. 17	BARNES, JOHN WILLIAM JAMES	Brougham Chambers, Wheeler Gate, Nottingham.
1307	1886, Feb. 22	BARNES-WILLIAMS, T., F.R.I.B.A.	{ St. Thomas' Chambers, 24, Railway Approach, London Bridge, S.E.
2157	1891, Nov. 4	BARR, JAMES, M.I.C.E. . . .	221, West George Street, Glasgow.
2158	1891, Nov. 4	BARRATT, FREDERICK WILLIAM .	The Vestry Hall, Bethnal Green, E.
2159	1891, Nov. 4	BARROW, THOMAS ROBERT . .	Lunesdale, Oak Street, Southport.
118	1868, Aug. 17	BARRY, CHARLES, F.R.I.B.A. .	1, Victoria Street, S.W.
1917	1891, Jan. 17	BARRY, DENNETT HEBER . . .	41, Bedford Row, W.C.
2058	1891, May 23	BARTON, HARRY HOWELL . . .	17, Guildhall Street, Folkestone, Kent.
2562	1893, Oct. 4	BARTON, JOHN GEORGE . . .	{ General Valuation and Boundary Survey Office, 6, Ely Place, Dublin.
1056	1884, Jan. 28	BATE, THOMAS . . .	The Red Tower, Kilburn, N.W.
2160	1891, Nov. 4	BATEMAN, JOHN . . .	Hall Garth, Clapham, Yorkshire.
1986	1891, Mar. 14	BATEX, HENRY SIMPSON . . .	51, King Street, Manchester.
726	1882, Feb. 13	BATH, FRED., F.R.I.B.A. . .	Crown Chambers, Salisbury, Wilts.
1918	1891, Jan. 17	BATHER, JOHN T. . . .	9, The Square, Shrewsbury.
2161	1891, Nov. 4	BATSTONE, ROWLAND ROBERT .	110, Cannon Street, E.C.
1368	1887, Feb. 7	BATTAM, FREDERICK THOMAS .	{ 17, Hart Street, Bloomsbury, W.C., and 28, Mount Street, Grosvenor Square, W.
1580	1889, Feb. 25	BATTERBURY, T., A.R.I.B.A. .	29, John Street, Bedford Row, W.C.
2162	1891, Nov. 4	BATTING, WALTER . . .	7, John Street, Adelphi, W.C.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	
2481	1892, Feb. 26	BAXTER, GEORGE	1, Frederick's Place, E.C., and Guildford.
2168	1891, Nov. 4	BEALE, ROBERT J., A.R.I.B.A. . .	9, Victoria Street, S.W.
1282	{ A. '85, Dec. 7 } { F. '89, Nov. 11 }	*BEARD, EDWIN THOMAS . . .	Wallsend, Pevensey, Sussex.
148	{ A. '68, Nov. 9 } { F. '89, Nov. 11 }	BEAUCHAMP, CHARLES DAVIE . .	9, Whitehall Place, S.W.
1450	1888, Feb. 6	BEAUMONT, CHARLES	East Bridgford, near Nottingham.
136	1868, Nov. 2	BEAUMONT, GEORGE	East Bridgford, near Nottingham.
2164	1891, Nov. 4	BECK, ARTHUR CLEMENT . . .	Castle Rising, King's Lynn, and Sandringham.
1457	1886, Feb. 20	BECK, EDWARD WILLIAM . . .	City Chambers, Norwich.
2165	1891, Nov. 4	BECK, FRANK REGINALD . . .	Sandringham, Norfolk.
1561	1889, Jan. 28	BECKWITH, HENRY LANGTON . .	14, North John Street, Liverpool.
959	{ A. '83, May 25 } { F. '87, May 23 }	*BEDELLS, CHARLES HERBERT . .	6, John Street, Bedford Row, W.C.
525	1879, Jan. 6	BEDELLS, CHARLES KING . . .	6, John Street, Bedford Row, W.C.
317	1873, Dec. 8	BEESTON, FRED., F.R.I.B.A. . .	30, Lincoln's Inn Fields, W.C.
1483	1888, Jan. 9	BEKEN, GEORGE	2, Circus Place, London Wall, E.C.
1387	1891, Mar. 14	BEKEN, WALTER	2, Circus Place, London Wall, E.C.
1458	1888, Feb. 20	BELL, JOSEPH ASKEW	Rufford Estate Office, Ollerton, Notts.
1662	{ A. '89, Dec. 9 } { F. '94, Apr. 2 }	*BEILINGHAM, ARCHIBALD TURNER	Dover's Green, Reigate, Surrey.
1187	1884, May 26	BENINGFIELD, HENRY	44, Haymarket, S.W.
388	1875, Mar. 1	BENNETT, THOMAS OATLEY . . .	Bruton, Somerset.
1212	{ A. '84, Nov. 10 } { F. '90, Dec. 8 }	*BENSON, ROBERT ALAN . . .	Duchy of Cornwall Office, Liskeard, Cornwall.
1214	1884, Dec. 8	BERTWISTLE, JAMES	1, Tackett's Street, Blackburn.
984	1883, Dec. 17	BETTRIDGE, EDWARD	28, Waterloo Street, Birmingham.
2505	{ A. '92, Nov. 28 } { F. '94, Oct. 10 }	*BEVEN, SEPTIMUS	86, Market Street, Ashby-de-la-Zouch.
1289	1885, Jan. 12	BICKERTON, GEORGE ARTHUR . .	62, King William Street, E.C.
1766	1890, Mar. 10	BICKERTON-WILLIAMS, EDWARD	City Chambers, 82, New Street, Birmingham.
190	1869, Mar. 22	BIDWELL, CHARLES	Ely, Cambridgeshire.
		(Member of Council)	
2167	1891, Nov. 4	BILSON, JOHN, F.R.I.B.A. . . .	23, Parliament Street, Hull.
2059	1891, May 23	BINGHAM, ALFRED JOHN . . .	{ Nalder Hill House, Newbury, and 5, Bolt Street, Piccadilly, W.
1919	1891, Jan. 17	BINGHAM, FREDERICK HENRY . .	5, Bolton Street, Piccadilly, W.
396	1875, Apr. 12	BINGHAM, REUBEN	5, Bolton Street, Piccadilly, W.
131	1868, Oct. 26	BINNIE, THOMAS	207, Hope Street, Glasgow.
2569	{ A. '93, Oct. 4 } { F. '95, Apr. 29 }	*BIRCH, RICHARD ELWYN . . .	Maes Elwy, St. Asaph, North Wales.
1930	{ A. '86, Dec. 6 } { F. '89, Nov. 11 }	*BIRCH, WALTER DE HOUGHTON .	{ Houghton Estate Office, Walton Hall, Presto Lancashire.
1490	1888, Nov. 12	BIRD, JAMES BINFIELD . . .	{ West Cowes, Isle of Wight, and 14, Que Victoria Street, E.C.
1636	1889, Dec. 9	BIRD, JOHN	Brampton, Huntingdon.
1154	1884, May 5	BIRD, WALTER	61, Edgware Road, W.
1351	{ A. '87, Jan. 10 } { F. '89, Feb. 25 }	BIRKETT, TOM	Foxton House, Penrith, Cumberland.
1920	1886, May 17	BIRKETT, WILLIAM	4, Glebe Road, Harrogate, Yorkshire.
1794	1890, May 29	BISHOP, CHARLES	Regent Circus, Swindon, Wilts.

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2568	1893, Oct. 4	*BLACKBOURN, HENRY . . .	6, Queen Anne's Gate, S.W.
1826	1886, Dec. 6	BLACKFORD, ARTHUR . . .	61 & 62, Chancery Lane, W.C.
1262	1885, Mar. 28	BLAKE, FREDERICK . . .	130, Queen Street, Portsea, Hants.
2168	1891, Nov. 4	BLAKE, GEORGE . . .	Stradey Estate Office, New Road, Llanelly.
888	1883, Feb. 12	BLAKE, WILLIAM JOHN, JUN. .	45, High Street, Croydon.
773	1882, Mar. 13	BLAKEMORE, WILLIAM AGUTTER	6, Duke Street, Adelphi, W.C.
1057	1834, Jan. 26	BLASHILL, THOMAS, F.R.I.B.A..	London County Council, Spring Gardens, S.W.
2169	1891, Nov. 4	BLENCOWE, GEORGE . . .	Bury St. Edmunds.
2170	1891, Nov. 4	BLETSOE, HENRY HOPKINSON .	Thrapstone, Oundle.
1058	1884, Jan. 28	BLEWITT, EDWARD ROBERT . .	St. Stephen's Club, S.W.
1988	1891, Mar. 14	BLIZARD, JOHN HY., A.M.I.C.E.	Lansdowne House, Castle Lane, Southampton.
511	{ A. '78, May 13 } { F. '87, Mar. 7 }	BLOSSE, EDWARD F. LYNCH .	Charles Street Chambers, Cardiff.
2171	1891, Nov. 4	BLYTON, GEORGE . . .	16, The Hawthorns, Church End, Finchley, N.
768	{ A. '82, Feb. 28 } { F. '89, Nov. 11 }	BOA, ANDREW . . .	Great Thurloe, Newmarket, Suffolk.
1882	{ A. '90, Nov. 22 } { F. '93, Aug. 9 }	*BODY, ARTHUR, A.R.I.B.A..	15, Princess Square, Plymouth, Devon.
1452	1888, Feb. 6	BODY, JOHN BOND . . .	15, Princess Square, Plymouth.
330	1874, Feb. 2	BOLAM, CHARLES GODFREY .	{ Estate Office, Boughton House, Kettering, North- amptonshire, and 82 & 83, Palace Chambers, S.W.
450	1876, May 8	BOLAM, WILLIAM THOMAS .	{ Cross House, Westgate Road, Newcastle-upon- Tyne.
408	1875, Dec. 13	BOLDEN, JOHN LEONARD . .	Duchy of Lancaster Office, Lancaster Place, W.C.
2060	1891, May 28	BOND, DOUGLAS VALE . . .	22, Surrey Street, Strand, W.C.
199	1869, May 3	BOND, ERASMUS . . .	The Lodge, Englefield Green, near Staines.
24	1888, Jun. 15	BONNY, JAMES RIPPOTH . .	{ Southall, Grove Park, S.E., and 47, Old Broad Street, E.C.
813	1882, May 22	BOOKER, ALGERNON ERSKINE .	Albion House, Hyde Park Square, W.
2172	1891, Nov. 4	BOOTHBY, HENRY VERNON . .	Estate Office, Keele, Newcastle, Staffordshire.
632	1881, Dec. 19	BOTTERILL, WILLIAM . . .	23, Parliament Street, Hull.
1883	{ A. '90, Nov. 22 } { F. '91, June 23 }	*BOULTING, FREDERICK EDWARD	Albert Gate Mansions, S.W.
1795	1890, May 29	BOURNE, ROBERT ELLIOTT . .	Elwell, Totnes, Devon.
1507	1888, Dec. 10	BOWDEN, JOHN . . .	14, Ridgefield, Manchester.
2173	1891, Nov. 4	BOWDICH, JOHN . . .	28, Moorgate Street, E.C.
1777	1890, Apr. 14	BOWDITCH, HENRY . . .	103, George Street, Croydon.
1778	1890, Apr. 14	BOWLEY, JOHN CROSS . . .	Beeston, near Nottingham.
1491	1888, Nov. 12	BOWMAN, JOHN JAMES . . .	Estate Office, Netherby, Carlisle.
1685	1890, Jan. 6	BOYD, JOHN JERMYN . . .	125, Piccadilly, W.
1476	1888, Apr. 16	BOYES, HY. CQWELL, F.R.I.B.A.	{ Ormond House, Great Trinity Lane, Queen Victoria Street, E.C.
1325	1886, Nov. 22	BRACKETT, ARTHUR WILLIAM .	27, High Street, Tunbridge Wells, Kent.
1884	{ A. '90, Nov. 22 } { F. '92, May 30 }	*BRACKETT, FREDERICK HENRY.	27, High Street, Tunbridge Wells, Kent.
870	1883, Jan. 29	BRACKETT, WILLIAM . . .	27, High Street, Tunbridge Wells, Kent.
2174	1891, Nov. 4	BRADFORD, WALTER . . .	Rose Cottage, Church Road, Wimbledon.
2175	1891, Nov. 4	BRADLEY, WILLIAM EDWARD .	The Hall, Ebberston, York.

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1562	1889, Jan. 28	BRADY, CHARLES ALLDIS . . .	17, Warren Street, Stockport, Cheshire.
1524	{ A. '88, Dec. 10 } { F. '93, Nov. 13 }	*BRADY, RALPH HOLLINSHED . . .	78, Cross Street, Manchester.
1989	1891, Mar. 14	BRADY, WILLIAM HOLLINSHED . . .	17, Warren Street, Stockport, Cheshire.
1397	1887, Dec. 5	BRAILSFORD, HENRY	Park Nook, near Derby.
1059	1884, Jan. 28	BRAY, HARRY	14, Warwick Court, Gray's Inn, W.C.
1441	1888, Jan. 23	BREACH, BENJAMIN P'ANSON . . .	2 and 3, Serle Street, Lincoln's Inn Fields, W.C.
727	1882, Feb. 13	BRERETON, FRANC S., F.R.I.B.A. . .	292, High Holborn, W.C.
2176	1891, Nov. 4	BRERETON, THOMAS BLOOMFIELD SADLEIR	} 292, High Holborn, W.C.
1920	1891, Jan. 17	BREWER, FRANK JOHN, F.R.I.B.A. . .	2, Upper Hill Street, Richmond, Surrey.
1921	1891, Jan. 17	BRIANT, ROBERT	200, Kennington Park Road, S.E.
829	1882, Dec. 18	BRIDGEWATER, BENTLEY JAMES . . .	80, Cheapside, E.C.
1870	1887, Feb. 21	BRIDGFORD, ERNEST JAMES . . .	28, Cross Street, Manchester.
1309	1886 Mar. 8	BRIDGFORD, COL. ROBERT, C.B. . .	28, Cross Street, Manchester.
953	1883, May 25	BRINSLEY, GEORGE	30 and 31, New Bridge Street, E.C.
2177	1891, Nov. 4	BROCKLEBANK, JOHN	{ 58A, Yorkshire Street, Rochdale, and Crossbrook Todmorden, Lancashire.
2178	1891, Nov. 4	BRODRICK, FREDERICK STEAD . . .	Cogan Chambers, Bowl Alley Lane, Hull.
1990	1891, Mar. 14	BROOKS, CHARLES W., A.R.I.B.A. . .	63, Finsbury Pavement, E.C.
1894	1890 Nov. 22	BROSTER, ROBERT BUCK	6 & 8, Temple Street, Keighley.
2135	{ A. '91, May 23 } { F. '93, May 29 }	*BROWN, ALEXANDER BURNETT . . .	Granville House, Arundel Street, Strand, W.C.
1664	{ A. '89, Dec. 9 } { F. '95, Mar. 18 }	*BROWN, ARTHUR MACDONALD . . .	Tring, Herts.
1060	1884, Jan. 28	BROWN, BRADSHAW	Billiter Square Buildings, E.C.
322	1874, Jan. 5	BROWN, DANIEL JOHNSON	10, Hill's Place, Oxford Street, W.
1500	1888, Nov. 26	BROWN, FRANK JOHN	Tring, Herts.
63	1868, Jul. 13	BROWN, GEORGE	Roborough House, Barnstaple, Devonshire.
634	1881, Dec. 19	BROWN, GEORGE JAMES	34, Great George Street, S.W.
933	1883, April 30	BROWN, JOHN POWLES	21, East Street, Hereford.
173	1869, Feb. 22	BROWN, THOMAS F., M.I.C.E. . . .	Guildhall Chambers, Cardiff.
2061	1891, May 23	BROWN, WILLIAM	67, Renfield Street, Glasgow.
1313	1886, May 3	BROWN, WILLIAM BLUMFIELD . . .	7, Southampton Street, Bloomsbury, W.C.
1142	{ A. '84, Apr. 21 } { F. '90, Apr. 14 }	BROWNE, FLINT	73, Cheapside, E.C.
1046	{ A. '84, Jan. 14 } { F. '90, Mar. 24 }	BRUCE, ROBERT KNIGHT	{ Mentmore Estate Office, Leighton Buzzard Bucks.
2482	1892, Feb. 26	BRUTON, HENRY WILLIAM	Albion Chambers, Gloucester.
2180	1891, Nov. 4	BRYDEN, ROBERT A., F.R.I.B.A. . .	212, St. Vincent Street, Glasgow.
1291	1886, Jan. 11	BRYDON, ROBERT	The Dene, Seaham-Harbour, Durham.
77	1863, July 13	BUCK, ALBERT	Worcester.
		(Member of Council)	
1542	1889, Jan. 14	BUCK, HERBERT WILSON	Pierpoint Street, Worcester.
1284	{ A. '85, Dec. 7 } { F. '89, Jan. 14 }	*BUCKLAND, ALFRED VIRGOB. . . .	8, Frederick's Place, Old Jewry, E.C.
270	1871, Dec. 18	BUCKLAND, FRANK BOWRY	Windsor.
1684	1890, Jan. 6	BUCKLAND, HENRY DUNEAU	4, Bloomsbury Square, W.C., and Windsor.

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2136	{ A. '91, May 23 } { F. '94, Oct. 10 }	*BUCKLAND, SIDNEY CRAWFORD .	Windsor, Berks.
1885	1890, Nov. 22	BUCKLEY, GEORGE	Tower Chambers, Halifax, Yorkshire
2181	1891, Nov. 4	BULL, ALFRED EDWIN	35, Craven Street, Charing Cross, W.C.
2182	1891, Nov. 4	BULL, WALTER	35, Old Jewry, E.C.
1922	1891, Jan. 17	BURCHELL, SIDNEY HERBERT .	Reigate, Surrey, and Wool Exchange, E.C.
1215	1884, Dec. 8	BURD, LAURENCE	Mayfield, Shrewsbury.
1543	1889, Jan. 14	BURD, TIMOTHEUS HENRY . .	School Gardens, Shrewsbury.
1796	1890, May 29	BURMESTER, JOHN WILLIAM } STANLEY, F.R.I.B.A. . . . }	30, Lincoln's Inn Fields, W.C.
2183	1891, Nov. 4	BURNET, FRANK	69, West Regent Street, Glasgow.
1797	1890, May 29	BURNETT, ALFRED ANDREW .	2, High Street, Southampton.
635	1881, Dec. 19	BURNETT, DAVID	14, Nicholas Lane, E.C.
1625	1889, May 13	†BURNETT, GEORGE JOHN } MULCASTER. }	Bylands, Redbourn, Herts.
379	1875, Feb. 1	BURROUGHES, THOMAS HENRY .	{ 30, Lincoln's Inn Fields, W.C., and 16, Lower Berkeley Street, W.
1392	{ A. '86, Dec. 6 } { F. '90, Jan. 6 }	*BURROWS, ALFRED JOHN . .	41, Bank Street, Ashford, Kent.
1216	1884, Dec. 8	BURTENSHAW, ALBERT . . .	Hailsham, Sussex.
1411	{ A. '87, Dec. 19 } { F. '91, May 25 }	*BUSHELL, HENRY	22, Great James Street, Bedford Row, W.C.
323	1874, Jan. 5	BUZZARD, ALFRED LINDSEY .	22, Surrey Street, Strand, W.C.
1637	1889, Dec. 9	BYRON, AUGUSTUS WILLIAM .	{ Sutton Estate Offices, Duckmanton, Chesterfield, and 16, Great George Street, S.W.
2184	1891, Nov. 4	CABLE, JAMES M.	11, Acre Lane, Brixton, S.W.
1638	1889, Dec. 9	CÆSAR, CHARLES EDWARD . .	105, Tooley Street, Southwark, S.E.
2185	1891, Nov. 4	CALVERT, ARTHUR RICHARD .	14, Low Pavement, Nottingham.
1798	1890, May 29	CAMPBELL, HENRY HUNTER .	Sutton Hall, St. Helen's, Lancashire.
1377	1887, Mar. 7	CANNING, WILLIAM BROWNE .	Salisbury, and Elston, near Devizes.
787	{ A. '82, Mar. 27 } { F. '84, Jan. 14 }	CARD, HENRY CURTIS	North Street, Lewes, Sussex.
2483	1892, Feb. 26	CARDONA, JOSEPH, JUN. . . .	Waterport Street, Gibraltar.
1799	1890, May 29	CAREW, JOHN THEODORE . . .	22, Surrey Street, Strand, W.C.
800	{ A. '82, Apr. 24 } { F. '83, Jan. 15 }	CARPENTER, EVAN GEORGE . .	45, High Street, Croydon, Surrey.
2186	1891, Nov. 4	CARRINGTON, THOMAS	Kiveton Park, near Sheffield.
232	{ A. '70, Feb. 7 } { F. '80, Nov. 22 }	CARRITT, ERNEST, A.R.I.B.A. .	18 & 19, Great St. Helen's, E.C.
2187	1891, Nov. 4	CARSWELL, WILLIAM	Capesthorpe, Chelford, Cheshire.
636	1881, Dec. 19	CARTWRIGHT, SIR HENRY EDWARD	1, Courtfield Gardens, S.W.
2188	1891, Nov. 4	CARTWRIGHT, JOSHUA	Bury, Lancashire.
1991	1891, Mar. 14	CASTELL, CHARLES SMITH . . .	2, Pont Street, Belgrave Square, S.W.
1603	1889, Mar. 18	CASTLE, ARTHUR	11, King Edward Street, Oxford.
2187	{ A. '91, May 23 } { F. '94, Nov. 12 }	*CASTLE, HAROLD	11, King Edward Street, Oxford.
637	1881, Dec. 19	CASTLE, HENRY JAMES	37, Bedford Row, W.C.
1201	{ A. '84, May 26 } { F. '87, Nov. 14 }	CASTLE, SYDNEY CHARLES } COURTENAY. }	40, Chancery Lane, W.C., and Neustead, Auck-land Road, Upper Norwood, S.E.

† Special Forestry Certificate.

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278	1872, Mar. 11	CASTLE, WILLIAM HENRY BALDWIN	40, Chancery Lane, W.C.
247	1870, Dec. 12	CATES, ARTHUR, F.R.I.B.A.	7, Whitehall Yard, S.W.
362	1875, Jan. 4	CAVE, HENRY H.	Estate Office, Northampton.
1480	1888, Apr. 30	CAVE, THOMAS NEWMAN	Horton, Northamptonshire.
1836	1890, Nov. 22	CHALK, HENRY PHILIP	Linton, Cambridgeshire
1061	1884, Jan. 28	CHANCELLOR, ALBERT	1, King Street, Richmond, Surrey.
219	1870, Jan. 10	CHANCELLOR, FRED., F.R.I.B.A.	20, Finsbury Circus, E.C., and Chelmsford, Essex.
2189	1891, Nov. 4	CHAPMAN, HENRY JAMES.	50, Belgrave Road, S.W.
1800	1890, May 29	CHARLES, RICHARD STAFFORD	St. Martin's House, 1, Gresham Street, E.C.
1768	1890, Mar. 24	CHART, ROBERT MASTERS	The Vestry Hall, Mitcham, Surrey.
2190	1891, Nov. 4	CHASEMORE, PHILIP	Ashleigh, Horsham, Sussex.
1923	1891, Jan. 17	CHATTELL, DAVID JAMES	29A, Lincoln's Inn Fields, W.C.
2191	1891, Nov. 4	CHATTERTON, GEO., M.I.C.E.	46, Queen Anne's Gate, S.W.
1274	1885, Nov. 28	CHESTERFERTON, EDWARD	{ 22, Lower Phillimore Place, Kensington, W., and 51, Cheapside, E.C.
1755	1890, Mar. 10	CHESTERTON, SIDNEY RAWLINS.	{ 22, Lower Phillimore Place, Kensington, W., and 51, Cheapside, E.C.
1135	1884, Apr. 21	CHESTON, CHESTER	Dashwood House, New Broad Street, E.C.
1992	1891, Mar. 14	CHESTON, HORACE, F.R.I.B.A.	5, Union Court, Old Broad Street, E.C.
2192	1891, Nov. 4	CHETWOOD, STEPHEN.	Waltham Abbey, Essex.
2198	1891, Nov. 4	CHEW, HENRY VICTOR	43, New Broad Street, E.C.
1781	1890, Feb. 24	CHILD, FRED.	{ 65 & 66, Chancery Lane, W.C., and 1, Station Road, New Barnet.
57	1868, Jul. 6	CHINNOCK, FREDERICK GEORGE	11, Waterloo Place, S.W.
1993	1891, Mar. 14	CHOWEN, HENRY LLEWELLYN	{ Londesborough Estate Office, Market Weighton Yorkshire.
1112 { A. '84, Feb. 25 } F. '91, June 29 }		CHRISTY, ARCHIBALD ERNEST	{ 30, Great St. Helen's, E.C., and 6, Market Buildings, Chelmsford, Essex.
1847	1887, Jan. 10	CLARE, EDWARD LOVELL	{ Yorkshire Bank Chambers, Bradford, and 38 Friar Lane, Leicester.
2484	1892, Feb. 26	CLARK, JOHN McCCLARE	Haltwhistle, Northumberland.
1639	1889, Dec. 9	CLARK, NATHANIEL	Beamish Park, Chester-le-Street, Co. Durham.
681	1882, Jan. 16	CLARK, SAMUEL	8, New Cavendish Street, W.
682	1882, Jan. 16	CLARKE ALFRED DUDLEY	Estate Office, Abberley, Stourport, Worcestershire
1801	1890, May 29	CLARKE, CHRISTOPHER	Charlcot, Bedale, York-shire.
1994	1891, Mar. 14	CLARKE, GEORGE ERNEST	12, Coleman Street, E.C.
1074 { A. '84, Jan. 2 } F. '86, Jan. 11 }		CLARKE, HOWARD CHATFIELD	63, Bishopsgate Street Within, E.C.
1508	1888, Dec. 10	CLARKE, JOHN WILLIAM	Guisbrough, Yorkshire.
1007 { A. '83, Dec. 17 } F. '89, Nov. 11 }		CLARKE, PERCY HENRY.	2, Lancaster Place, W.C.
1924	1891, Jan. 17	CLARKE, STANLEY	202, Bishopsgate Street Without, E.C.
2194	1891, Nov. 4	CLARKSON, JOHN, F.R.I.B.A.	Ormond Chambers, 28, Great Ormond Street, W.C.
1837	1890, Nov. 22	CLARKSON, WILLIAM	136, High Street, Poplar, E.
1686	1890, Jan. 6	CLIFTON, JAMES E., F.R.I.B.A.	Swanage, Dorset.

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1122	{ A. '84, Mar. 10 F. '89, Jan. 28 }	CLIFTON, WM. E., F.R.I.B.A.	7, East India Avenue, Leadenhall Street, E.C.
1701	1890, Jan. 27	CLOUGH, RICHARD CHARLES BUTLER	{ Ty Maur, Denbigh, North Wales.
1810	1886, Mar. 8	CLOUGH-TAYLOR, HORACE GEO.	39, Friar Lane, Leicester.
29	1868, Jun. 15	CLUTTON, HENRY, F.R.I.B.A.	Hartwood, Reigate, Surrey.
6	1868, Jun. 15	CLUTTON, JOHN (Past-President)	9, Whitehall Place, S.W.
78	{ A. '68, Jul. 13 F. '75, May 10 }	CLUTTON, JOHN HENRY	9, Whitehall Place, S.W.
61	{ A. '68, Jul. 6 F. '74, Apr. 13 }	CLUTTON, RALPH	9, Whitehall Place, S.W.
221	{ A. '70, Jan. 10 F. '75, Dec. 13 }	CLUTTON, RALPH WILLIAM . . .	Hartwood, Reigate, Surrey.
65	1868, Jul. 13	CLUTTON, ROBERT GEORGE . . . (Member of Council)	9, Whitehall Place, S.W.
153	1869, Jan. 11	CLUTTON, WILLIAM JAMES . . .	The Mount, York, and The Castle, Cockermouth.
1285	{ A. '85, Dec. 7 F. '94, May 28 }	*COALES, HERBERT GEORGE, A.M.I.C.E.	{ Market Harborough Local Board Offices, Market Harborough.
713	1882, Jan. 30	COBB, HERBERT MANSFIELD . . .	Higham, Kent, and 53, Lincoln's Inn Fields, W.C.
1544	1889, Jan. 14	COBHAM, CHARLES	{ "The Shrubbery," Gravesend, Kent, and Local Board Office, Grays, Essex.
1838	1890, Nov. 22	COBHAM, GEORGE RADCLIFFE . . .	1 & 3, Edwin Street, Gravesend, Kent.
1885	{ A. '90, Nov. 22 F. '94, Apr. 16 }	*COBHAM, GEORGE WILLIAM . . .	1 & 3, Edwin Street, Gravesend, Kent.
2195	1891, Nov. 4	COCKS, ROBERT	Estates Office, Altrincham, Cheshire.
2196	1891, Nov. 4	COCKS, SAMUEL ROGER	5, St. Thomas' Street, Ryde, Isle of Wight.
1839	1890, Nov. 22	COLES, SAMUEL HOOD COWPER . .	Penmyarth, Crickhowell, S. Wales.
769	{ A. '82, Feb. 27 F. '84, Jan. 28 }	COLGATE, THOMAS	Sheffield Park, Uckfield, Sussex.
1710	1890, Feb. 10	COLLIER, RICHARD JAMES	34, Finsbury Pavement, E.C.
2197	1891, Nov. 4	COLLIER, WALTER HENRY	7, Moorgate Street, E.C.
1414	{ A. '87, Dec. 19 F. '91, Feb. 2 }	COLLINGHAM, JOHN CYRIL LEES .	6, Mount Street, W.
119	1868, Aug. 17	COLLINS, HENRY H., F.R.I.B.A.	61, Old Broad Street, E.C.
826	{ A. '82, Dec. 4 F. '91, Jan. 19 }	COLLINS, MARCUS E.	61, Old Broad Street, E.C.
2198	1891, Nov. 4	COLTMAN, WALTER JOHN	39, Great James Street, Bedford Row, W.C.
1925	1891, Jan. 17	COLYER, FREDERICK, M.I.C.E. . .	18, Great George Street, S.W.
1501	1888, Nov. 26	COMBES, CYRUS	{ Tisbury, Wilts, and Misterton, Crewkerne, Somerset.
2062	1891, May 23	COMMUN, FREDERICK JAMES . . .	7, Bedford Circus, Exeter.
1926	1891, Jan. 17	CONDER, ALFRED, F.R.I.B.A. . .	Palace Chambers, 9, Bridge Street, S.W.
1564	1889, Jan. 28	COOKE, HENRY	Thong, near Gravesend.
1172	1884, May 19	COOPER, ARTHUR LESLIE	17, Friar Street, Reading.
2199	1891, Nov. 4	COOPER, GEORGE WARREN	34, Hart Street, Bloomsbury, W.C.
715	1882, Jan. 30	COOPER, JOHN GROVES	Bideford, Devon.
1927	1891, Jan. 17	COOPER, JOHN ROBERT	{ 35, Old Jewry, E.C., and Queen's Lodge, West End Lane, West Hampstead, N.W.
445	1876, Apr. 24	COOTE, GEORGE	Smeetham Hall, Sudbury, Suffolk.
1966	{ A. '91, Jan. 17 F. '95, Jan. 21 }	*COPE, HENRY JAMES	202, Clapham Road, S.W.

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2200	1891, Nov.	4	COPLAND, WILLIAM R., M.I.C.E.	146, West Regent Street, Glasgow.
2201	1891, Nov.	4	CORBETT, CHRISTOPHER. . . .	9, Albert Square, Manchester.
1597	1889, Mar.	4	CORBETT, EDWIN WORTLEY } MONTAGU }	Bute Estate Office, Castle Street, Cardiff.
2202	1891, Nov.	4	CORBY, JOSEPH BOOTHROYD . . .	Scotgate, Stamford, Lincolnshire.
2453 { A. '91, Nov. 4 } F. '92, May 30 }			*CORDEROY, ATHELSTANE. . . .	19, Queen Anne's Gate, S.W.
1581	1889, Feb.	25	CORDEROY, GEORGE	19, Queen Anne's Gate, S.W.
926 { A. '83, Apr. 16 } F. '89, Nov. 11 }			COUCHMAN, HENRY BOTELEER . .	40, Coten End, Warwick.
994	1883, April	30	COUCHMAN, ROBERT EDWARD . .	35, Paradise Street, Birmingham.
2208	1891, Nov.	4	COULSON, WILLIAM LINDSAY . .	Clarendon House, Elmwood Road, Croydon.
556	1880, Jan.	5	COVERDALE, FREDERICK JOHN . .	Ingatestone Hall, Essex.
728	1882, Feb.	13	COVERDALE, HENRY	11, St. Helen's Place, E.C.
1840	1890, Nov.	22	COWGILL, BRIAN BOLLANS HIRD	18A, Piece Hall Yard, Bradford.
1732	1890, Feb.	24	COX, EDWARD SAMUEL	3, New Street, York.
2204	1891, Nov.	4	CRANFIELD, WILLIAM BATHGATE	6, Poultry, E.C.
159	1869, Jan.	25	CRAWTER, JOHN	Cheshunt, Herts.
961 { A. '83, May 25 } F. '88, Nov. 26 }			CRAWTER, JOHN, JUN.	12, Furnival's Inn, E.C., and Cheshunt, Herts.
160	1869, Jan.	25	CRICKMAY, GEORGE RACKSTROW, { F.R.I.B.A.. }	17, Parliament Street, S.W., and St. Thom Street, Weymouth.
641	1889, Dec.	9	CRICKMAY, JOHN EDWARD . . .	Weymouth, Dorset.
2205	1891, Nov.	4	CROCKETT, EDWIN ARTHUR } BRASSEY }	11, Pancras Lane, E.C.
608 { A. '81, Feb. 7 } F. '90, Feb. 24 }			CROFTS, EWAN NEVILLE	Caythorpe, Grantham, Lincolnshire.
730	1882, Feb.	13	CRONK, EDWYN EVANS	12, Pall Mall, S.W., and Sevenoaks, Kent.
731	1882, Feb.	13	CRONK, FRANK	12, Pall Mall, S.W., and Sevenoaks, Kent.
871	1883, Jan.	29	CRONK, WILLIAM HENRY	Sevenoaks, Kent.
416	1876, Jan.	10	CROSS, JOHN	77, King Street, Manchester.
1754	1890, Mar.	10	CROSS, WILLIAM HASLAM	77, King Street, Manchester.
307	1873, Apr.	21	CROSS, WILLIAM S., F.R.I.B.A.	18, Outer Temple, and 2, Cecil Street, Strand, W.
2206	1891, Nov.	4	CROWTHER, JOHN HERBERT . . .	38, New Street, Huddersfield.
2208	1891, Nov.	4	CRUWYS, ROBERT	Bank Chambers, 465, Brixton Road, S.W.
1928	1891, Jan.	17	CUMBERLAND, EDWARD ANTHONY	Luton and Leighton Buzzard.
1604	1889, Mar.	18	CUNDY, HUBERT JOHN	Wetherby and Leeds, Yorkshire.
32	1868, Jun.	15	CURREY, HENRY, F.R.I.B.A. . .	37, Norfolk Street, W.C.
1565	1889, Jan.	28	CURREY, PERCIVALL, F.R.I.B.A.	37, Norfolk Street, W.C.
1581	1887, Mar.	21	CURRY, HENRY JOHN	58, High Street, Stockton-on-Tees.
581	1880, Dec.	13	CURTIS, CHARLES EDWARD . . .	26, Gledstanes Road, West Kensington, W.
488	1877, Apr.	16	CURTIS, ROBERT LEABON	119 and 120, London Wall, E.C.
548	1879, Apr.	28	CURTIS, SAMUEL PERKINS	119 and 120, London Wall, E.C.
2063	1891, May	23	CUTLAN, JOHN ELLIS	{ Market Square, Wellingborough, Northampton shire.
2209	1891, Nov.	4	CUXSON, GEO. A. P., A.R.I.B.A.	17, Victoria Street, S.W.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	
688	1881, Dec. 19	DALLAS, EDWIN STUART . . .	34, Great James Street, Bedford Row, W.C.
987	1883, Dec. 17	DANIEL, HARRY AUGUSTUS HOOD . .	Keynsham Manor, near Saltford, Somerset.
782	1882, Feb. 13	DANN, HENRY	Dartford, Kent.
2210	1891, Nov. 4	DANSKEN, JOHN	121, West Regent Street, Glasgow.
1666	{ A. '89, Dec. 9 } { F. '91, Apr. 6 }	*DARCH, JOHN	74, Sarsfeld Road, Balham, S.W.
510	1878, Apr. 29	DARLEY, WILLIAM	Llangwrn, Corwen, North Wales.
907	{ A. '83, Feb. 26 } { F. '91, May 25 }	DASH, ROLAND ASHFORD	9, Whitehall Place, S.W., and Walton-on-Thames.
896	1883, Feb. 26	DASH, THOMAS ALEXIS	Faris Tarn, Woodham Lock, Addlestone, Surrey.
1527	{ A. '88, Dec. 10 } { F. '92, July 4 }	*DAVEY, HENRY THOMAS	24, Priory Avenue, Hastings.
1995	1891, Mar. 14	DAVEY, JOHN GEORGE ELLIS . . .	Vere Lodge, Raynham, Fakenham, Norfolk.
848	{ A. '82, Dec. 18 } { F. '90, Nov. 10 }	DAVID, EDMUND USSHER	Old Bank Chambers, 27, High Street, Cardiff.
2512	{ A. '92, Nov. 28 } { F. '94, Oct. 10 }	*DAVIES, DAVID THOMAS	11, Serle Street, Lincoln's Inn, W.C.
1509	1888, Dec. 10	DAVIES, GEORGE HUMPHREYS . .	8, Laurence Pountney Hill, E.C.
1583	1889, Feb. 25	DAVIES, JOHN	Mollington, Chester.
300	1878, Feb. 10	DAVIES, JOHN MORGAN	Froodvale, Llanwrda, South Wales.
2211	1891, Nov. 4	DAVIES, WALTER	6, Waterloo Place, S.W.
2212	1891, Nov. 4	DAVIS, ALFRED T., A.M.I.C.E. . .	Shirehall, Shrewsbury.
1996	1891, Mar. 14	DAVIS, CHARLES EDWARD	Wroxton Estate Office, near Banbury, Oxon.
780	{ A. '83, Mar. 18 } { F. '89, Nov. 11 }	DAVIS, CHARLES JAMES	32, Strand, W.C.
2213	1891, Nov. 4	DAVIS, FREDERICK WILLIAM . . .	Bridge House, 181, Queen Victoria Street, E.C.
491	{ A. '77, Dec. 10 } { F. '81, Nov. 14 }	DAVIS, JAMES	32, Strand, W.C.
897	1883, Feb. 26	DAW, WILLIAM HERBERT	6, Ironmonger Lane, E.C.
2214	1891, Nov. 4	DAWSON, EDWARD H., A.R.I.B.A. .	41, Market Street, Lancaster.
1929	1891, Jan. 17	DAWSON, JOHN GEORGE	{ 4, Lincoln's Inn Fields, W.C., and Kingston-on-Thames.
2215	1891, Nov. 4	DAWSON, PERCY JOHN	Zinal, Palace Road, Streatham Hill, S.W.
1642	1889, Dec. 9	DAY, GEORGE CARLETON	Estate Office, Woodbridge, Shaftesbury, Dorset.
1009	{ A. '87, Dec. 17 } { F. '87, Nov. 14 }	*DAY, WILLIAM, JUN.	23, High Street, Maidstone, Kent.
683	1882, Jan. 16	DEACON, THOMAS MARK	1, Adelaide Street, Charing Cross, S.W.
1733	1890, Feb. 24	DEANE, EDWARD	148, Friar Street, Reading, Berks.
1756	1890, Mar. 10	DEARLE, WILLIAM HENRY	6, John Street, Adelphi, W.C.
2513	{ A. '92, Nov. 28 } { F. '93, Aug. 9 }	*DEBENHAM, FRANK BRIDGE- WATER	{ 80, Cheapside, E.C.
1442	1888, Jan. 23	DEBENHAM, FRANK GISSING . . .	Cheshunt Park, Herts, and 80, Cheapside, E.C.
2140	{ A. '91, May 23 } { F. '93, Aug. 9 }	*DEBENHAM, HORACE BENTLEY . .	80, Cheapside, E.C.
2216	1891, Nov. 4	DEER, EDWARD	Stratford-on-Avon.
1010	{ A. '83, Dec. 17 } { F. '91, Oct. 15 }	DEMETRIADI, THOMAS MARSDEN .	28, John William Street, Huddersfield.
1667	{ A. '89, Dec. 9 } { F. '94, Jan. 22 }	*DENDY, WILLIAM COOPER	46, Fordwych Road, Brondesbury, N.W.
1930	1891, Jan. 17	DENNISON, JOHN W., F.R.I.B.A. .	Wakefield Lodge, East Ham, Essex.
863	1883, Jan. 15	DENT, RALPH JOHN	Highfield Villas, Sedbergh, Yorkshire.
759	1882, Feb. 27	DEW, WILLIAM ARTHUR	Wellfield House, Bangor.
1711	1890, Feb. 10	DE WEND, WILLIAM FENTON . . .	New Market Buildings, Bridgnorth.

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1228	{ A. '84, Dec. 8 } F. '85, May 18 }	*DICKSON, THOMAS ARTHUR	Estate Office, Overston Park, Northampton.
884	1888, Feb. 12	DINWIDDY, THOMAS	Croom's Hill, Greenwich Park, S.E.
169	{ A. '69, Feb. 8 } F. '78, Feb. 25 }	DODGSON, WILFRED LONGLEY	{ The Court, Cleobury North, Bridgnorth, 55, Broad Street, Ludlow.
1136	1884, Apr. 21	DOLL, CHARLES FITZROY	74, Gower Street, Bedford Square, W.C.
2217	1891, Nov. 4	DOLLAR, PETER, A.R.I.B.A. . . .	Clock House, Arundel Street, Strand, W.C.
1415	{ A. '87, Dec. 19 } F. '91, Dec. 7 }	*DONE, JOHN JAMES	45, Lincoln's Inn Fields, W.C.
1250	1885, Feb. 9	DONNE, HENRY	Leek Wootten, Warwick.
2218	1891, Nov. 4	DORNING, ARTHUR HARRY	41, John Dalton Street, Manchester.
1582	1889, Feb. 25	DORNING, ELIAS	41, John Dalton Street, Manchester.
168	{ A. '69, Jan. 25 } F. '82, Nov. 31 }	DOWDEN, HENRY JOSEPH	8, Craig's Court, Charing Cross, S.W.
498	1878, Jan. 14	DOWNING, FREDERICK	7A, Whitehall Yard, S.W.
1997	1891, Mar. 14	DOWNING, HY. P. B., A.R.I.B.A. . . .	{ 7, Great College Street, S.W., and Cawthra Villas, Wilton Road, Merton, Surrey.
2219	1891, Nov. 4	DOWSETT, CHARLES FINCH	3, Lincoln's Inn Fields, W.C.
1841	1890, Nov. 22	DRANSFIELD, HENRY BROOK	12, 13, & 14, Estate Buildings, Huddersfield.
817	{ A. '82, May 22 } F. '84, May 19 }	DRAPER, ARTHUR THOMAS	Friar Lane, Leicester.
1848	1887, Jan. 10	DRAY, ALFRED	Town Hall Chambers, Hastings, Sussex.
801	1878, Feb. 10	DREW, HENRY	15, Queen Street, Exeter.
		(Member of Council)	
1836	{ A. '86, Dec. 6 } F. '88, Nov. 12 }	*DREW, HENRY ALBAN	15, Queen Street, Exeter.
1095	{ A. '84, Feb. 11 } F. '89, Jan. 14 }	DREW, JOHN GOULD	15, Queen Street, Exeter.
2220	1891, Nov. 4	DREWEATT, THOMAS	Newbury, Berkshire.
918	1883, April 2	DREWITT, GEORGE	94, High Street, Guildford.
419	{ A. '76, Jan. 10 } F. '78, Feb. 25 }	DRIVER, CHARLES WILLIAM	4, Whitehall, S.W.
9	1868, Jun. 15	DRIVER, ROBERT COLLIER	4, Whitehall, S.W.
		(Past-President)	
582	1880, Dec. 18	DRIVER, ROBERT MANNING	4, Whitehall, S.W.
684	1882, Jan. 16	DRURY, EDW. DRU, F.R.I.B.A. . . .	25, Queen Anne's Gate, S.W.
1692	{ A. '90, Jan. 6 } F. '93, Dec. 4 }	*DUDLEY, EDGAR	Bedford House, 24, Bedford Street, Plymouth.
1802	1890, May 29	DUKE, EDWARD	Dorchester.
1808	1890, May 29	DUKE, FREKE GUY RASHLEIGH	Braehead, Kilmarnock.
2064	1891, May 23	DUKE, HENRY, JUN. . . .	Dorchester, Dorset.
1779	1890, Apr. 14	DUNCALFE, HENRY GEORGE	102, Darlington Street, Wolverhampton.
2221	1891, Nov. 4	DUNCAN, JAMES MORISON	40 & 42, Queen Victoria Street, E.C.
324	1874, Jan. 5	DUNCH, CHARLES	St. Clement's House, St. Clement's Lane, E.C.
252	1871, Jan. 30	DUNLOP, ALEXANDER MILNE	3, Old Palace Yard, S.W.
		(Vice-President)	
1981	1891, Jan. 17	DUNN, WILLIAM HENRY	11, St. Helen's Place, E.C.
1932	1891, Jan. 17	DUVALL, JOHN WILLIAM	The Grange, Ware.
2222	1891, Nov. 4	DYBALL, HARVEY	35, Bucklersbury, E.C.
1933	1891, Jan. 17	DYBALL, SEXTUS	Gatton Lodge, Reigate, Surrey.
792	1882, Apr. 24	DYER, WILLIAM JOHN	Montpelier Row, Blackheath, S.E.
35	1868, Jun. 15	DYMOND, FRANCIS WILLIAMS	Bampfylde House, Exeter.

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1251	1885, Feb. 9	EADE, ARTHUR WILLOUGHBY FRENCH	Feethams, Darlington.
1529	{ A. '91, Dec. 10 } { F. '92, May 30 }	*EAGLAND, WILLIAM FRANCIS	274, Portland Road, South Norwood, S.E.
1584	1889, Feb. 25	EAGLE, WILLIAM	77, King Street, Manchester.
864	1883, Jan. 15	EALF, FRED. ERNST, F.R.I.B.A.	9, Welbeck Street, W.
1585	1889, Feb. 25	EAMES, EDWARD	Stoke Manor, near Alresford, Hants.
1934	1891, Jan. 17	EARDLEY, JOHN WILLIAM	Swanwick Colliery, Alfreton, Derbyshire.
2223	1891, Nov. 4	EARLE, THOMAS ALGERNON	90, King Street, Manchester.
2224	1891, Nov. 4	EARNSHAW, JACOB	36, South King Street, Manchester.
2225	1891, Nov. 4	EASTHAM, JAS. COOK, A.M.I.C.E.	The Town Hall, Manchester.
1998	1891, Mar. 14	EASTON, JOHN H.	Bowl Alley Lane, Hull.
1999	1891, Mar. 14	EATYRS, JOHN THOS., M.I.C.E.	Town Hall, West Bromwich.
1935	1891, Jan. 17	EDMESTON, JAMES, F.R.I.B.A.	42, Old Broad Street, E.C.
1210	1884, Nov. 10	EDWARDES, CHARLES BIDWELL	The Precincts, Peterborough.
2226	1891, Nov. 4	EDWARDS, ARTHUR PHIPPEN	Hutton, near Weston-super-Mare, Somerset.
639	1881, Dec. 19	EGERTON, HUBERT DECIMUS	2 and 3, Serle Street, Lincoln's Inn, W.C.
988	1883, Dec. 17	EGGAR, JAMES ALFRED	9, West Street, Farnham, Surrey.
1173	1884, May 19	EGGINTON, JOHN	150, Friar Street, Reading.
530	{ A. '79, Jan. 20 } { F. '83, Dec. 3 }	ELLOART, FREDERICK EDWARD	40, Chancery Lane, W.C.
1629	1889, Nov. 25	ELDRIDGE, HERBERT	23, Cadogan Place, Belgrave Square, S.W.
2227	1891, Nov. 4	ELFORD, JOHN	King Street, Poole, Dorset.
1434	1888, Jan. 9	ELGAR, J. EDWARD	Crockshard, Wingham, Kent.
1886	{ A. '90, Nov. 22 } { F. '92, Feb. 1 }	ELGOOD, FRANK M., A.R.I.B.A.	98, Wimpole Street, W.
1401	1887, Dec. 19	ELLEN, FREDERICK CHARLES	The Auction Mart, Andover.
1036	1884, Jan. 14	ELLIOTT, CHARLES	{ Wilts and Dorset Bank Chambers, George Street, Plymouth, and The Fawns, Ermington, Ivy Bridge, Devon.
2228	1891, Nov. 4	ELLIS, EDWARD	Bedford Chambers, Exeter.
577	{ A. '80, Mar. 15 } { F. '87, Nov. 14 }	ELLIS, ERNEST HAROLD	132, High Street, Guildford.
1887	{ A. '90, Nov. 22 } { F. '94, May 28 }	*ELLIS, FRANCIS, JUN.	Trafford Park, Patricroft, near Manchester.
2065	1891, May 23	ELLIS, FREDERICK	141, Inverness Terrace, W.
830	1882, Dec. 18	ELLIS, HENRY	57, Chancery Lane, W.C.
1530	{ A. '83, Dec. 10 } { F. '90, May 12 }	*ELLIS, HERBERT MOATES	143, Cannon Street, E.C.
1865	{ A. '87, Jan. 24 } { F. '91, Feb. 16 }	*ELLIS, RALPH STAPLES	29, Fleet Street, E.C.
885	1883, Feb. 12	ELLIS, RICHARD ADAM	45, Fenchurch Street, E.C.
380	1875, Feb. 1	ELLIS, SIR JOHN WHITTAKER, BART., M.P.	{ 29, Fleet Street, E.C., and 18, Old Broad Street, E.C.
2066	1891, May 23	ELLIS, WILLIAM ALFRED	176, Brompton Road, S.W.
2229	1891, Nov. 4	ELLISON, MICHAEL	Duke of Norfolk's Estate Offices, Sheffield.
667	{ A. '81, Dec. 19 } { F. '90, Dec. 8 }	ELWELL, WILLIAM HENRY	{ Surveyor's Office, Great Northern Railway, King's Cross, N.
276	1872, Feb. 26	EMMANUEL, BARROW	2, Finsbury Circus, E.C.
2230	1891, Nov. 4	EVANS, ARTHUR OWEN	Town Hall, Pontypridd, Glamorganshire.
1757	1830, Mar. 10	EVANS, CHARLES LEE	Norton Hill, Runcorn, Cheshire.

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1936	1891, Jan. 17	EVANS, GEORGE	1, Adelaide Street, W.C.
898	1883, Feb. 26	EVANS, ROBERT, F.R.I.B.A.	Eldon Chambers, Wheeler Gate, Nottingham.
2231	1891, Nov. 4	EVANS, WALTER PEARSON	Caldwell, Nuneaton.
2232	1891, Nov. 4	EVANS, WILLIAM, A.M.I.C.E.	St. John Street, Beverley, Yorkshire.
338	{ A. '74, Feb. 16 } { F. '76, Nov. 27 }	EVANS, WILLIAM ERNEST	School Gardens, Shrewsbury.
2000	1891, Mar. 14	EVANS-VAUGHAN, HENRY	{ Weston-under-Redcastle, near Shrewsbury, Newlands Estate Office, Milford-on-Sea, Lymington, Hants.
1416	{ A. '87, Dec. 19 } { F. '91, May 25 }	*EVE, HERBERT TRUSTRAM	2, St. Paul's Square, Bedford.
685	1882, Jan. 16	EVE, JOHN RICHARD	St. Paul's Square, Bedford, Bedfordshire.
104	1868, Aug. 8	EVE, WILLIAM	10, Union Court, Old Broad Street, E.C.
1882	1887, Mar. 21	EVERARD, JOHN BREEDON, M.I.C.E., F.R.I.B.A.	{ 6, Millstone Lane, Leicester.
2233	1891, Nov. 4	EVERILL, FRANK	59, Foregate Street, Worcester.
1549	{ A. '89, Jan. 14 } { F. '92, Nov. 14 }	*EVES, WILLIAM LIONEL	54, High Street, Uxbridge.
557	1880, Jan. 5	FAIR, JACOB WILSON (Member of Council)	{ Haigh Hall, Wigan, and 8, Winckley S Preston.
1510	1888, Dec. 10	FAIR, JAMES STRETTON	{ Estate Offices, Lytham, and 4, Winckley S Preston.
1174	1884, May 19	FAIR, THOMAS	Estate Offices, Lytham, Lancashire.
1937	1891, Jan. 17	FAIRCLOUGH, WILLIAM	{ Leigh, Lancashire, and 60, King Street, chester.
1758	1890, Mar. 10	FALCON, MICHAEL	Horstead House, Norfolk.
1062	1884, Jan. 28	FARMER, EDMUND	80, Cheapside, E.C.
2234	1891, Nov. 4	FARNAN, HENRY RICHARD	75, Coleman Street, E.C.
1759	1890, Mar. 10	FARRAR, SIDNEY H., M.I.C.E.	{ 54, Old Broad Street, E.C., and Port Eliza Johannesburg, South Africa.
2002	1891, Mar. 14	FARRER, JOHN	Oulton, near Leeds, Yorkshire.
2235	1891, Nov. 4	FARTHING, WALTER THOMAS	46, Strand, W.C.
1938	1891, Jan. 17	FARWELL, FREDERICK GEORGE	11, Laura Place, Bath.
1321	1886, May 17	FAWKES, ALGERNON	Sudbury, Derby.
1037	1884, Jan. 14	FAYERMAN, GEORGE METCALFE	88, The Parade, Leamington, Warwickshire.
1402	1887, Dec. 19	FENN, JOHN	{ The Hull, Ardleigh, and 146, High S Colchester.
1712	1890, Feb. 10	FENN, THOMAS	Downton Castle, Ludlow.
555	{ A. '80, Jan. 19 } { F. '87, Mar. 21 }	FENNING, HERBERT SAMUEL	St. Paul's Square, Bedford, Bedfordshire.
2003	1891, Mar. 14	FENWICK, THOMAS, M.I.C.E.	Leeds, Yorkshire.
1804	1890, May 29	FERGUSON, JAMES	Livermere, Bury St. Edmund's, Suffolk.
974	1883, Nov. 12	FERRIS, GEORGE	Milton Manor, Pewsey, Wilts.
831	1882, Dec. 18	FIDDIAN, WILLIAM	Town Hall Offices, Stourbridge.
297	1873, Jan. 27	FIELD, FRANCIS HAYWARD	11, King Edward Street, Oxford.
872	1883, Jan. 29	FIELD, JAMES FREDERICK	54, Borough High Street, S.E.
1842	1890, Nov. 22	FILLINGHAM, EDWARD	Spring Bank, Hull.
2236	1891, Nov. 4	FINN, ADOLPHUS	High Street, Lydd, Kent.

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2287	1891, Nov. 4	FINN, ARTHUR GEORGE . . .	The Deanery, Chartham, Canterbury.
1848	1890, Nov. 22	FINN, GEORGE WILLIAM . . .	Westwood Court, Faversham, Kent.
2456	{ A. '91, Nov. 4 F. '94, Oct. 10 }	*FINN, HERBERT ARCHIBALD . . .	59, Foregate Street, Worcester.
927	{ A. '83, Apr. 16 F. '89, Jan. 14 }	FISHER, CHARLES BROWNING . . .	Hill Crest, Market Harborough.
1459	1888, Feb. 20	FISHER, EDWARD KNAPP . . .	Market Harborough, Leicestershire.
1088	1884, Jan. 14	FLEETWOOD, GEORGE . . .	15, Furnival's Inn, E.C.
1465	1888, Mar. 5	FLETCHER, THOMAS . . .	{ Estate Office, Dunkenhalth, Clayton-le-Moors, near Accrington, and 46, Fishergate, Preston.
749	{ A. '82, Feb. 13 F. '91, June 29 }	FLINT, WILLIAM HURST . . .	11, Serle Street, Lincoln's Inn Fields, W.C.
562	1880, Jan. 19	FLOCKTON, THOS. J., F.R.I.B.A.	15, St. James' Row, Sheffield.
1734	1890, Feb. 24	FODEN, EDWARD ANTROBUS . . .	Teddesley Estate Office, Penkridge, Staffordshire.
1805	1890, May 29	FOLEY, JOHN HOWARD . . .	Mauvers Street, Trowbridge.
2067	1891, May 23	FORBES, CHARLES MANSFELDT . . .	14, New Street, York.
2238	1891, Nov. 4	FORD, LAWTON ROBERT . . .	{ St. Thomas's Chambers, 24, Railway Approach, London Bridge, S.E.
2518	{ A. '92, Nov. 28 F. '95, May 13 }	*FORD, SOLOMON, A.R.I.B.A. . . .	3, Queen Street, Cheapside, E.C.
640	1881, Dec. 19	FORREST, ROBERT . . .	Windsor Estate Office, St. Fagans, near Cardiff.
551	1879, Dec. 8	FORSHAW, EDWARD . . .	{ Hanley, Staffordshire, and Springfields, Strams- hall, Uttoxeter.
1844	1890, Nov. 22	FORSYTH, THOMAS HILLS . . .	39, Northumberland Street, Newcastle-upon-Tyne.
1089	1884, Jan. 14	FOSBERY, WILLIAM THOMAS EXHAM	} Warwick.
279	1872, Mar. 11	FOSTER, CHARLES ROLLS . . .	54, Pall Mall, S.W.
1531	{ A. '88, Dec. 10 F. '92, Oct. 12 }	*†FOSTER, FRANK	Adelphi Chambers, 7, John Street, W.C.
2239	1891, Nov. 4	FOSTER, HENRY EDWIN . . .	6, Poultry, E.C.
641	1881, Dec. 19	FOSTER, JOSEPH BURGESS . . .	4, Cambridge Street, Plymouth, Devon.
687	1882, Jan. 16	FOULKES, SEPTIMUS GIFFORD . . .	Tring, Herts.
686	1882, Jan. 16	FOWLER, FREDERICK . . .	St. James' Street, Sheffield.
1806	1890, May 29	FOWLER, GERARD EDMUND . . .	93, New Street, Birmingham.
1807	1890, May 29	FOWLER, HENRY	63, Dale Street, Manchester.
892	1882, Dec. 18	FOWLER, HENRY	6, Waterloo Street, Birmingham.
1780	1890, Apr. 14	FOWLER, REGINALD WILLIAM . . .	3, Hartshead, Sheffield.
1403	1887, Dec. 19	FOWLER, RICHARD	118, Colmore Row, Birmingham.
1605	1889, Mar. 18	FOWLER, SYDNEY, A.R.I.B.A. . . .	9, Craig's Court, Charing Cross, S.W.
2240	1891, Nov. 4	FOWLER, WILLIAM	69, Temple Row, Birmingham.
2241	1891, Nov. 4	FOX, CHARLES JAMES	22, George Street, Halifax.
1845	1890, Nov. 22	FOX, EDWIN	99, Gresham Street, E.C.
2242	1891, Nov. 4	FRANPTON, ALFRED, A.R.I.B.A. . . .	62 and 63, Basinghall Street, E.C.
2243	1891, Nov. 4	FRANCE, ARTHUR ALDERSON . . .	99, Swan Arcade, Bradford.
2244	1891, Nov. 4	FRANCE, CHARLES	99, Swan Arcade, Bradford.
1545	1889, Jan. 14	FRANCIS, GEORGE FUTVOYE . . .	Eaton Chambers, Buckingham Palace Road, S.W.
1760	1890, Mar. 10	FRANCIS, LEON ALBERT . . .	6, John Street, Adelphi, W.C.
1808	1890, May 29	FRANKLIN, ARTHUR THOMAS . . .	25, Ludgate Hill, E.C.

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2457	{ A. '91, Nov. 4 } F. '95, Feb. 18 }	*FRANKLIN, BENJAMIN BELGROVE	Holly Walk, Luton, Beds.
921	1888, April 16	FRANKLIN, THOMAS	Ascott, near Wallingford.
1809	1890, May 29	FRANKLIN, THOMAS FREDERICK .	25, Ludgate Hill, E.C.
1967	{ A. '91, Jan. 17 } F. '94, Dec. 10 }	*FRASER, WILLIAM	209, St. Vincent Street, Glasgow.
1114	{ A. '84, Feb. 25 } F. '90, Apr. 14 }	FREEMAN, SYDNEY	{ The Broadway, Tunbridge Wells, Kent, and Queer Street, E.C.
1217	1884, Dec. 8	FREUER, WILLIAM	West Rudham, Swaffham, Norfolk.
2069	1891, May 23	FROST, FREDERIC CORNISH . .	Teignmouth, Devon.
369	1875, Jan. 18	FRY, GEORGE FREDERICK . . .	46, London Road, Dover, Kent.
784	1882, Feb. 18	FRYER, GEORGE	{ 15, Parliament Street, Hull, and Rose Bishop Wilton, near York.
1063	1884, Jan. 28	FULLER, ERNEST	98, Wimpole Street, W.
1040	1884, Jan. 14	FULLER, HARRY	83, High Street, Croydon.
947	{ A. '88, May 21 } F. '88, Nov. 26 }	FULLER, HERBERT HENRY . .	15, Serjeants' Inn, Fleet Street, E.C.
1124	{ A. '84, Mar. 10 } F. '91, Apr. 20 }	FULLER, THOMAS ALFRED . .	The College, All Saints', Derby.
775	1882, Mar. 18	FORBER, HERBERT	2, Warwick Court, Gray's Inn, W.C.
1064	1884, Jan. 28	FURBER, WILLIAM	2, Warwick Court, Gray's Inn, W.C.
417	1876, Jan. 10	GAIRDNER, EDWARD JAMES . .	27, Southampton Buildings, W.C.
2245	1891, Nov. 4	GALE, ARTHUR JOHN, F.R.I.B.A.	4, Serjeants' Inn, Fleet Street, E.C.
2004	1891, Mar. 14	GALE, ERNEST SEWELL . . .	Falcon Court, 32, Fleet Street, E.C.
761	1882, Feb. 27	GALE, JOSEPH JOHN	Market Place, Wallingford, Berks.
819	1882, Nov. 13	GALPIN, CHARLES ALEXANDER .	36, Pembroke Street, Oxford.
55	1868, Jul. 6	GALSWORTHY, FREDERICK THOMAS (Member of Council)	11, Waterloo Place, S.W.
1713	1890, Feb. 10	GAMBLE, SIDNEY GOMPERTZ, } A.M.I.C.E. }	Metropolitan Fire Brigade, Southwark Road, S.E.
1606	1889, Mar. 18	GANDY, JAMES	22, Essex Street, Strand, W.C.
785	1882, Feb. 18	GARDINER, EDWARD JAMES . .	110, Great Russell Street, W.C.
127	1868, Sep. 28	GARDINER, WILLIAM JAMES . .	110, Great Russell Street, W.C.
2520	{ A. '92, Nov. 28 } F. '95, Mar. 4 }	*GARDNER, GILBERT	Castle Street, Woodbridge, Suffolk.
98	{ A. '68, Jul. 27 } F. '83, Nov. 12 }	GARRARD, ARTHUR	8, Frederick's Place, Old Jewry, E.C.
		(Member of Council)	
2246	1891, Nov. 4	GARRARD, NORTON BURROUGHS .	Cranley Hall, Eye, Suffolk.
2247	1891, Nov. 4	GARROOD, THOMAS WILLIAM M.	172, Fenchurch Street, E.C.
1810	1890, May 29	GATE, ALFRED JOSEPH	20, Mecklenburg Square, W.C.
688	1882, Jan. 16	GATER, CALEB WILLIAM . . .	Salisbury, Wilts.
1203	{ A. '84, May 26 } F. '89, Jan. 14 }	GAYFORD, HENRY JOHN . . .	Raynham Estate Office, East Raynham, N.
1643	1889, Dec. 9	GAZE, THOMAS WILLIAM . . .	Frenze Hall, Diss, Norfolk.
935	1883, April 30	GERMAN, GEORGE	{ Packington House, Ashby-de-la-Zouch, Leicestershire
2070	1891, May 23	GERMAN, HARRY	Loughborough, and Ashby-de-la-Zouch.
887	1883, Feb. 12	GERMAN, JOHN	Ashby-de-la-Zouch, Leicestershire.
1161	{ A. '84, May 5 } F. '87, Nov. 14 }	*GIBB, WILLIAM PASHLEY . .	Estate Office, Stafford Street, Dublin.

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1294	{ A. '86, Jan. 11 } F. '90, Nov. 10 }	GIBBON, WM. JACOMB, A.R.I.B.A.	36, Great James Street, Bedford Row, W.C.
1620	1889, Apr. 29	GIBSON, DENSTON	98, New Street, Birmingham.
1668	{ A. '89, Dec. 9 } F. '93, May 8 }	*GIDDY, OSMAN HORTON . . .	121, Pall Mall, S.W.
381	1875, Feb. 1	GILBERT, WILLIAM HENRY SAINSBURY	} 62, Old Broad Street, E.C.
1621	1889, Apr. 29	GILLART, DAVID	Towyn, Merionethshire.
1466	1888, Mar. 5	GILPIN-BROWN, WILLIAM DUNDAS	Blankney Estate Office, Metheringham, Lincoln.
218	1869, Dec. 6	GIRDWOOD, JAMES	18, Adam Street, Adelphi, W.C.
2249	1891, Nov. 4	GIVEN, MAXWELL.	Town Surveyor's Office, Coleraine, Co. Derry.
420	1876, Jan. 24	GLASIER, GEORGE HENRY BROUGHAM	} 7, St. James's Street, S.W.
1702	1890, Jan. 27	GLEED, RICHARD CUMMINGS .	5, Adelaide Place, London Bridge, E.C.
1890	{ A. '90, Nov. 22 } F. '93, Dec. 4 }	*GODDARD, ALEXANDER	Bank Place, Chester.
1566	1889, Jan. 28	GODDARD, JOSEPH, F.R.I.B.A.	{ 6, Market Street, Leicester, and Carlton Chambers, 12, Regent Street, S.W.
1285	{ A. '85, Dec. 7 } F. '86, May 17 }	*GODFREY, ROBERT, A.M.I.C.E.	Valentine Road, King's Heath, near Birmingham.
2250	1891, Nov. 4	GODSELL, GEORGE HERBERT .	Palace Chambers, King Street, Hereford.
2005	1891, Mar. 14	GOLDSMITH, WILLIAM	40, Old Broad Street, E.C.
2251	1891, Nov. 4	GOODACRE, JOHN, F.R.I.B.A.	5, Friar Lane, Leicester.
1511	1888, Dec. 10	GOODACRE, ROBT. J., F.R.I.B.A.	Friar Lane, Leicester.
989	1883, Dec. 17	GOODCHILD, JOSIAH	59, Tollington Park, N.
1546	1889, Jan. 14	GOODWYN, LEONARD WILLIAM .	{ 8, Granville Chambers, Granville Place, Portman Square, W.
2006	1891, Mar. 14	GORDON, CHAS. G., A.M.I.C.E.	Club de Residentes Estrangeros, Buenos Ayres.
314	{ A. '78, May 19 } F. '78, Mar. 11 }	GORE, SPENCER W.	16, Whitehall Place, S.W.
1989	1891, Jan. 17	GOTT, CHARLES, M.I.C.E. . . .	8, Charles Street, Bradford.
2252	1891, Nov. 4	GOTT, CHARLES HENRY	8, Charles Street, Bradford.
1567	1889, Jan. 28	GOTT, FRANK	3, East Parade, Leeds.
478	{ A. '77, Feb. 12 } F. '82, Dec. 18 }	GOTTO, FREDERICK EDWARD .	Stony Stratford, Bucks.
578	1880, Apr. 12	GOULDING, WILLIAM PURDHAM.	41, Moorgate Street, E.C.
2071	1891, May 23	GOULDSMITH, GEORGE WALLER.	2, Pont Street, Belgrave Square, S.W.
2072	1891, May 23	GOVER, ARTHUR S., F.R.I.B.A.	4, Queen Street Place, E.C.
2253	1891, Nov. 4	GOVER, JOHN RICHARD	44, Great Dover Street, Borough, S.E.
1846	1890, Nov. 22	GRADWELL, ARTHUR RICHARD .	10, Richmond Terrace, Blackburn.
2254	1891, Nov. 4	GRAHAM, ARTHUR GORE	Victoria Chambers, Newport, Monmouthshire.
370	1875, Jan. 18	GRAHAM, WILLIAM	Victoria Chambers, Newport, Monmouthshire.
1218	1884, Dec. 8	GRAIN, ARTHUR TRESS	2, St. Andrew's Hill, Cambridge.
827	{ A. '82, Dec. 4 } F. '85, Jan. 12 }	GRANT, JAMES	Penrallt, Llanidloes, Montgomeryshire.
1260	1885, Mar. 9	GRAVES, WALTER, F.R.I.B.A.	Winchester House, Old Broad Street, E.C.
2255	1891, Nov. 4	GREAVES, JOHN OLDROYD . . .	69, Westgate, Wakefield.
1891	{ A. '90, Nov. 22 } F. '94, Jan. 22 }	*GREEN, ALEXANDER ERNEST .	Colonial House, 155, Fenchurch Street, E.C.
2259	1891, Nov. 4	GREEN, ALFRED WILLIAM . . .	Clare Castle, County Clare, Ireland.
690	1882, Jan. 16	GREEN, JAMES	22, Chancery Lane, W.C.
1735	1890, Feb. 24	GREEN, JOHN.	Dodderhill Court, Droitwich, Worcestershire

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2256	1891, Nov. 4	GREEN, ROBERT COUPER . . .	26, Fawcett Street, Sunderland,
1188	1884, May 26	GREEN, SAMUEL	28 and 29, St. Swithin's Lane, E.C.
1847	1890, Nov. 22	GREEN, THOMAS THORNTON . .	12 & 13, Poultry, E.C.
2257	1891, Nov. 4	GREGSON, WILLIAM	Baldersby, S.O., Yorks.
1087	1884, Feb. 11	GRELIER, HARLEY MAIR . . .	6, Queen Anne's Gate, S.W.
871	1875, Jan. 18	GREY, CHARLES GREY	Ballycourcy, Enniscorthy, Co. Wexford.
2073	1891, May 23	GRIFFIN, HAROLD	54, High Street, Battersea, S.W.
1714	1890, Feb. 10	GRIFFITHS, EDWARD, JUN. . .	Knockin, near Oswestry.
1736	1890, Feb. 24	GRIFFITHS, WILLIAM	{ Gellay-Wernen Estate, Llanelly, Carmarthen shire.
2258	1891, Nov. 4	GRIGGS, ROBERT, A.R.I.B.A. .	11, Gray's Inn Square, W.C.
1611	1889, Apr. 1	GRIMLEY, EDWIN FEARN . . .	40, Temple Street, Birmingham.
1612	1889, Apr. 1	GRIMLEY, THOMAS	40, Temple Street, Birmingham.
2142	{ A. '91, May 23 } { F. '92, May 30 }	*GROGAN, HEDWORTH HERBERT.	125, Piccadilly, W.
2486	1892, Feb. 26	GROGAN, HENRY THOMAS . . .	101, Park Street, Grosvenor Square, W.
1811	1890, May 29	GROSE, VINCENT J., F.R.I.B.A.	13, Railway Approach, S.E.
1727	{ A. '90, Feb. 10 } { F. '93, Jan. 26 }	*GROVER, ARTHUR	38, Woodberry Down, N.
2260	1891, Nov. 4	GRUNING, EDWARD A., F.R.I.B.A.	25, Gresham House, Old Broad Street, E.C.
1737	1890, Feb. 14	GUDGEON, GEORGE EDWARD . .	Estate Agency Offices, Winchester, Hants.
2261	1891, Nov. 4	GURNEY, JAMES	Chalfont St. Giles, Slough, Bucks.
433	1876, Mar. 20	GWYNNE, WM. W., F.R.I.B.A.	102, Temple Chambers, Temple Avenue, E.C.
2262	1891, Nov. 4	HABGOOD, HENRY CHARLES . .	Witney, Oxfordshire.
1586	1889, Feb. 25	HACKFORD, GEORGE	6, Queen Anne's Gate, S.W.
347	1874, Mar. 16	HADDOCK, ROLAND	Union Bank Chambers, Croydon, Surrey.
1670	{ A. '89, Dec. 9 } { F. '93, Aug. 9 }	*HADLEY, FRANK	41, Temple Street, Birmingham.
2263	1891, Nov. 4	HALE, RAYMOND HENRY	6, Great Queen Street, S.W.
2264	1891, Nov. 4	HALL, CHARLES EDWARD	297, Old Chester Road, Rock Ferry, Cheshire.
619	1881, May 2	HALL, ERNEST	166, Queen Street, Portsea, Hants.
517	1878, Dec. 9	HALL, JOHN GEORGE, A.R.I.B.A.	1, Caithness Road, West Kensington, W.
923	1883, April 16	HALL, WALTER	38, Chancery Lane, W.C.
1295	{ A. '86, Jan. 11 } { F. '91, June 29 }	*HALL, WILLIAM TIMOTHY . . .	Hawkstone Estate Office, near Slrewsbury.
1189	1884, May 26	HALLETT, WILLIAM BROWN . .	{ 11, Queen Victoria Street, E.C., and 278, Hol- way Road, N.
1738	1890, Feb. 24	HAMILTON, JOHN	23 & 24, Wormwood Street, E.C.
2265	1891, Nov. 4	HAMPTON, WILLIE THOMAS . .	Hotel Street, Coalville, Leicester.
1481	1888, Apr. 30	HANCOCK, WILLIAM ST. JOHN HÜ, F.R.I.B.A.	{ Hong Kong, China, and 14, Clifford's Inn, E.C.
1687	1890, Jan. 6	HANKINSON, THOMAS JAMES . .	Richmond Chambers, Bournemouth, Hants.
1210	1885, Jan. 12	HANNEN, REGINALD ST. JOHN .	The Cottage, Fordingbridge, Salisbury.
892	{ A. '83, Feb. 12 } { F. '89, Jan. 14 }	*HANSELL, REGINALD GODDARD	Lonsdale Chambers, 27, Chancery Lane, W.C.

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245	1885, Jan. 26	HANSON, AMOS	35, Church Street, St. Helen's, Lancashire.
265	1891, Nov. 4	HANSON, JOHN H., A.M.I.C.E.	20, Ramsden Street, Huddersfield.
342	1881, Dec. 19	HARDCASTLE, FREDERICK HENRY APPLETON, A.R.I.B.A.	} 5, Old Queen Street, S.W.
481 { A. '77, Mar. 26 } F. '82, Dec. 18 }		HARDING, EDWARD ERNEST	
548	1881, Dec. 19	HARDING, SIDNEY LONGHURST	St. Albans, Herts.
492	1888, Apr. 30	HARDY, RICHARD THOMAS ASH {	Land Agency and Estate Offices, Carter Street, Uttoxeter, Staffordshire.
613	1889, Apr. 1	HARGRAVES, STEPHEN	{ Brabyns Estate Office, Manor House, Marple, Cheshire.
704	1891, May 23	HARLAND, MARCHANT JAMES	Strafford Road, High Barnet.
707	1891, Mar. 14	HARLE, JOHN JOSEPH	Tortworth Estate Office, Falfield, Gloucester.
267	1891, Nov. 4	HARPUR, WILLIAM, M.I.C.E.	Town Hall, Cardiff.
496 { A. '78, Jan. 28 } F. '83, Nov. 12 }		HARRINGTON, GEORGE FREDERICK	16, Abchurch Lane, E.C.
990	1883, Dec. 17	HARRIS, JAMES	Winchester, Hants.
739	1890, Feb. 24	HARRISON, JAMES THOMAS	Town Hall Offices, Buckingham.
775	1891, May 23	HARRISON, RICHD. C., F.R.I.B.A.	103, Cannon Street, E.C.
812	1890, May 29	HARSTON, ARTHUR	15, Leadenhall Street, E.C.
263	1871, Feb. 27	HART, WILLIAM FREDERICK	Lambeth Waterworks, Brixton Hill, S.W.
790	1895, Mar. 18	HARTLEY, HENRY	{ Bristowe Chambers, 8, Harrington Street, Liver- pool
512	1888, Dec. 10	HARVEY, FREDERICK HENRY	Clapham Junction House, S.W.
523 { A. '78, Dec. 9 } F. '90, Jan. 6 }		HARVEY, JOHN JAMES SAYER	80, Castle Street, Canterbury, Kent.
551 { A. '89, Jan. 14 } F. '91, Oct. 15 }		HASKINS, WILLIAM ALBION	7A, Whitehall Yard, S.W.
512	1873, May 19	HASLAM, DRYLAND	Friar Street Chambers, Reading, Berks.
372 { A. '89, Dec. 9 } F. '93, Aug. 9 }		*HASLAM, DRYLAND, JUN.	Friar Street Chambers, Reading, Berks.
562 { A. '83, May 25 } F. '89, Apr. 1 }		*HASLUCK, LANCELOT GERALD	Green Hill Park, New Barnet, Herts.
707	1889, Mar. 18	HAUGHTON, WILLIAM HOGHTON	Highlands, Great Barford, St. Neots.
568	1891, Nov. 4	HAWKER, HARRY EDWIN	St. Peter's Chambers, Bournemouth.
72	1888, Mar. 19	HAWKINS, CHARLES	Downham Market, Norfolk.
708	1889, Mar. 18	HAWLEY, HENRY MICHAEL	Tumby Lawn, Boston.
69	1891, Nov. 4	HAYNES, HENRY	Estate Office, Clifton, Nottingham.
13	1888, Dec. 10	HAYTON, JOSEPH WILLIAM	Devonshire Chambers, Carlisle.
76	1891, May 23	HAYTON, PATTINSON	Devonshire Chambers, Carlisle.
68 { A. '91, Jan. 17 } F. '94, Apr. 2 }		*HAYWARD, FREDERICK GEORGE	Market Square, Dover, Kent.
44	1881, Dec. 19	HAYWARD, HENRY	Dover, Kent.
53	1885, Feb.	HAYWOOD, HENRY	9, West Street, Hereford.
54	1885, Feb. 23	HAYWOOD, WILLIAM MATTHEWS	9, West Street, Hereford.
73 { A. '89, Dec. 9 } F. '91, May 25 }		*HEAD, JOHN GEORGE	7, Upper Baker Street, N.W.
38	1882, Dec.	HEARD, HERBERT	Shepton Mallet, Somerset.
70	1891, Nov.	HEATH, HENRY	34, Finsbury Pavement, E.C.
92	1882, Jan. 16	HEATON, GEORGE HERBERT	Eldon, near Stoke-upon-Trent, Staffordshire.
17	1881, Apr.	HEBBLETHWAITE, LOUIS	Conservancy Buildings and Anlaby Road, Hull.

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1848	1890, Nov. 22	HEBDITCH, WILLIAM BENJAMIN	Stratton, South Petherton, Ilminster, Somerset.
1327	1886, Dec. 6	HEDLEY, JOHN HUNT . . .	55, John Street, Sunderland.
1088	1884, Feb. 11	HEDLEY, ROBERT WILKIN . .	31A, Colmore Row, Birmingham.
250	1871, Jan. 15	HEDLEY, THOMAS FENWICK . .	Sunderland.
1740	1890, Feb. 24	HEELIS, WILLIAM . . .	26, Budge Row, E.C.
821	{ A. '82, Nov. 13 } { F. '90, Jan. 6 }	HENDERSON, HENRY ARTHUR .	70, Finsbury Pavement, E.C.
1328	1886, Dec. 6	HENDRIKS, HENRY . . .	43, Waterloo Street, Birmingham.
1378	1887, Mar. 7	HEPPER, JOHN . . .	East Parade, Leeds.
1219	1884, Dec. 8	HERBERT, ALLAN . . .	The Market Place, Andover, Hants.
991	1883, Dec. 17	HERON, WILLIAM CHARLES . .	Uxbridge, Middlesex.
1575	1889, Feb. 11	HERRING, WILLIAM ARTHUR WARWICK	} 28, Upper Berkeley Street, Portman Square
1435	1888, Jan. 9	HESKETT, WILLIAM JAMES . .	
1715	1890, Feb. 10	HICKMAN, THOMAS . . .	Leaton, near Shrewsbury.
2077	1891, May 28	HICKSON, STEPHEN WESTBY .	{ Telephone Buildings, 31, Queen Victoria St E.C.
1065	1884, Jan. 28	HIGGINS, FREDERIC . . .	
1674	{ A. '89, Dec. 9 } { F. '91, May 25 }	*HIGGINS, GEORGE . . .	12, Finchley Road, St. John's Wood, N.W.
2078	1891, May 28	HILL, THOMAS NELSON . .	140, Bath Street, Glasgow.
1311	1886, Mar. 22	HILL, WILLIAM BURROUGH . .	62, Above Bar, Southampton, Hants.
220	1870, Jan. 10	HILLIARD, GEORGE BRIDGE . .	Chelmsford, Essex.
1303	{ A. '86, Jan. 25 } { F. '90, Mar. 24 }	HILLIARD, GEORGE EDWARD .	Chelmsford, Essex.
1388	1887, Apr. 18	HILTON, JOHN . . .	{ 30, Budge Row, E.C., and 17, Montpelier Blackheath.
2079	1891, May 28	HINCKS, HENRY THORP . .	
2272	1891, Nov. 4	HINDLE, JOHN . . .	24, Bank Street, Bradford.
2273	1891, Nov. 4	HINDS, HENRY . . .	57, Queen Street, Ramsgate.
671	{ A. '81, Dec. 19 } { F. '83, Nov. 12 }	HINE, GEORGE ERNEST . . .	5, Waterloo Place, S.W.
900	1883, Feb. 26	HINE, GEORGE THOMAS . .	{ 35, Parliament Street, S.W., and Victoria St Nottingham.
70	1868, Jul. 18	HIPPISLEY, EDWIN . . .	
1782	1890, Apr. 14	HIPPISLEY, EDWIN MAGGS . .	12, Chamberlain Street, Wells, Somerset.
1783	1890, Apr. 14	HIPPISLEY, WILLIAM JOHN . .	12, Chamberlain Street, Wells, Somerset.
815	1882, May 22	HITCHCOX, WILLIAM . . .	Victoria Chambers, Newport, Monmouthshire.
1769	1890, Mar. 24	HOBBS, JOHN . . .	Guinea Hall, Sellinge, near Hythe, Kent.
518	1878, Dec. 9	HOBGEN, FRANCIS NEALE . .	East Street, Chichester.
2080	1891, May 23	HOBGEN, THOMAS CECIL . .	East Street, Chichester.
888	1883, Feb. 12	HOBSON, FREDERICK WILLIAM .	79, Coleman Street, E.C.
2008	1891, Mar. 14	HOBSON, HARRY . . .	Swinefleet, near Goole, Yorkshire.
1552	{ A. '89, Jan. 14 } { F. '89, Nov. 25 }	*HODGE, LEONARD PERCIVAL .	St. Leonard's, Queen's Road, Norbiton, Surrey.
2274	1891, Nov. 4	HODGSON, ARTHUR MARRIOTT .	4, Albion Place, Southampton.
519	1878, Dec. 9	HODSON, GEORGE, M.I.C.E. .	{ Loughborough, and Abbey Buildings, P Street, Westminster, S.W.

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2275	1891, Nov. 4	HODGSON, WILLIAM	7, Finsbury Square, E.C.
2081	1891, May 28	HOGGARTH, ARTHUR	Kendal, Westmoreland.
2082	1891, May 23	HOGGARTH, EDWIN	69, Highgate, Kendal, Westmoreland.
793	1882, Apr. 24	HOLBECH, ROBERT NEVILLE .	21, Bennett's Hill, Birmingham.
2063	1891, May 28	HOLCOMBE, JAMES JOHN . . .	The Fawns, Ermington, Devon.
1813	1890, May 29	HOLCOMBE, WALTER	30, Orchard Street, Portman Square, W.
357	1874, Nov. 16	HOLDEN, JOHN, F.R.I.B.A. . .	64, Cross Street, Manchester.
2276	1891, Nov. 4	HOLDSWORTH, FREDERICK HENRY	91, Billiter Buildings, Billiter Street, E.C.
1155	1884, May 5	HOLIDAY, FREDERICK DEAN . .	Bicester, Oxfordshire.
893	{ A. '83, Feb. 12 } { F. '89, Nov. 11 }	HOLLAND, THOMAS JAMES, JUN.	3, Little George Street, S.W.
2277	1891, Nov. 4	HOLLINGSWORTH, ARTHUR AUGUSTUS	} 27, Leadenhall Street, E.C.
2278	1891, Nov. 4	HOLLOWAY, HARRY HOWNAM . .	
1770	1890, Mar. 24	HOLLOWAY, THOMAS	Chippenham, Wilts.
2279	1891, Nov. 4	HOLMAN, GEORGE EDWARD . . .	109, Bow Road, E.
1272	1885, Nov. 9	HOLME, JOHN	Owlet Ash, Milnthorpe, Westmoreland.
693	1882, Jan. 16	HOLMES, JAMES	23, Delamere Street, Ashton-under-Lyne.
2009	1891, Mar. 14	HOLMES, MONTAGU	33, Paternoster Row, E.C.
2280	1891, Nov. 4	HOLT, GEORGE HY., A.M.I.C.E.	10, Richmond Terrace, Blackburn,
2281	1891, Nov. 4	HOMAN, FRANKLIN GEORGE . .	147, Eastgate, Rochester, Kent.
1741	1890, Feb. 24	HONEYBALL, FRED THOMAS . .	Deal, Kent.
2084	1891, May 28	HOOD, HON. VICTOR ALBERT NELSON	} 12, Wimpole Street, W.
1097	{ A. '84, Feb. 11 } { F. '89, Jan. 28 }	HOPE, WILLIAM ELLIOTT . . .	
1644	1889, Dec. 9	HOPKINS, ALFRED JAMES . . .	37, Mortimer Street, Cavendish Square, W.
2282	1891, Nov. 4	HOPKINSON, ALFRED, A.M.I.C.E.	15, Agar Street, Bury, Lancashire.
2010	1891, Mar. 14	HORNE, EDMUND	High Street, Hounslow, Middlesex.
794	1882, Apr. 24	*HORNE, WILLIAM EDGAR . . .	{ 85, Gresham Street, E.C., and 17, Great George, Street, S.W.
1890	1887, May 9	HORNOR, CHARLES JARED . . .	32, Prince of Wales' Road, Norwich.
1891	1887, May 9	HORNOR, FRANCIS	Queen Street, Norwich.
2011	1891, Mar. 14	HORNSBY, ROBERT	Estate Office, Hovingham, York.
1275	1885, Dec. 7	HORSEY, FREDERICK	11, Billiter Square, E.C.
1826	1890, May 29	HORSEY, FREDERICK JOHN TERRY	11, Billiter Square, E.C.
174	1869, Feb. 22	HORSFALL, RICHARD (Member of Council)	{ Post Office Buildings, George Street, Halifax, Yorkshire.
1761	1891, Mar. 10	HORSFALL, RICHARD EDGAR . .	Post Office Buildings, George Street, Halifax.
2288	1891, Nov. 4	HORSFIELD, J. NIXON	2, Penrhyn Road, Kingston-on-Thames.
2284	1891, Nov. 4	HOUGHTON, FREDERICK	3, Union Court, Old Broad Street, E.C.
2285	1891, Nov. 4	HOUGHTON, JOHN POUNDS . . .	26, The Avenue, Kew, and Richmond.
1940	1891, Jan. 17	HOUGHTON, WILLIAM	58, Old Broad Street, E.C.
1587	1889, Feb. 25	HOVENDEN, HENRY EDWARD . .	30, Bishopsgate Street Without, E.C.
2085	1891, May 23	HOWARD, HARRY	17, Clifton Road, Littlehampton.

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171	{ A. '69, Feb. 8 } { F. '83, Mar. 12 }	HUBBERSTY, HENRY ALFRED .	Buxton, Derbyshire.
986	1883, Apr. 30	HUDSON, ARTHUR BYRNE . .	17, Godliman Street, E.C.
2086	1891, May 23	HUDSON, EDW. WM., A.R.I.B.A.	76, Fellows Road, N.W., and Hove, Sussex.
1118	1884, Mar. 10	HUDSON, JAMES	Penrith, Cumberland.
1609	1889, Mar. 18	HUGMAN, CHARLES EADY . .	9, Craig's Court, Charing Cross, S.W.
776	1882, Mar. 13	HULL, CHARLES	Euston Station, London, N.W.
175	1869, Feb. 22	HUMPHREYS, CHARLES . . .	56, Leadenhall Street, E.C.
627	1881, Dec. 5	HUMPHREYS, HENRY . . .	Woodhouse, Loughborough, Leicestershire.
2087	1891, May 23	HUMPHREYS, JOHN HENRY . .	Woodhouse, Loughborough, Leicestershire.
2068	1891, May 23	HUNT, FREDERICK COPE . . .	9, Cowley Street, Westminster, S.W.
2287	1891, Nov. 4	HUNT, FRED WM. H., F.R.I.B.A.	30, York Place, Portman Square, W.
353	1874, May 11	HUNT, HENRY ARTHUR . . .	45, Parliament Street, S.W.
181	1869, Mar. 8	HUNT, JOSIAH	6, Queen Anne's Gate, S.W.
2069	1891, May 23	HUNT, THOMAS	Baldock Street, Ware, Herts.
1941	1891, Jan. 17	HUNTER, CECIL	45, Lincoln's Inn Fields, W.C.
2288	1891, Nov. 4	HURRELL, JOHN WEYMOUTH .	25, Brazennose Street, Manchester.
1016	{ A. '83, Dec. 19 } { F. '91, Jan. 5 }	HUSKINSON, THOMAS WILLIAM .	Epperstone Manor, Nottingham.
326	1874, Jan. 19	HUSKINSON, WILLIAM LAMBE .	The Manor House, Epperstone, Nottingham.
1220	1884, Dec. 8	HUSSEY, FRANK TOOZE . . .	{ The Grove, Cheddton Fitzpaine, Tan Somerset.
1182	{ A. '84, May 19 } { F. '89, Dec. 9 }	HUSSEY, ROBERT	Brereton Rugeley, Staffordshire.
1477	1888 Apr. 16	HUXLEY, WALTER FREEMAN .	29, John Street, Bedford Row, W.C.
563	1880, Jan. 19	L'ANSON, EDWARD BLAKEWAY, } F.R.I.B.A.	7A, Laurence Pountney Hill, E.C.
1137	1884, Apr. 21	INCE, CHARLES HENRY . . .	Broom Leasoe, Whittington, Lichfield.
851	{ A. '82, Dec. 18 } { F. '91, Aug. 4 }	INGRAM, HENRY LAW . . .	16, Whitehall Place, S.W.
305	{ A. '73, Feb. 10 } { F. '82, Jan. 16 }	INGRAM, WALTER FIELDE . .	{ 2, St. Andrew's Place, Lewes, and 17, Pro Street, Brighton, Sussex.
834	1882, Dec. 18	INMAN, MARSHALL NISBET . .	7, Bedford Row, W.C.
2290	1891, Nov. 4	INMAN, WILLIAM NUTTER . .	126, Maida Vale, W.
885	1882, Dec. 18	INNOCENT, CHAS. J., F.R.I.B.A.	Sheffield.
2291	1891, Nov. 4	IRELAND, EDWIN BENJAMIN .	Guestwick, East Dereham, Norfolk.
1942	1891, Jan. 17	JACKSON, BENJAMIN WHITEHEAD	George Street, Halifax.
570	1880, Feb. 16	JACKSON, CHARLES	23, Brazennose Street, Manchester.
2292	1891, Nov. 4	JACKSON, FREDERICK WILLIAM .	72, Cheapside, E.C.
1943	1891, Jan. 17	JACKSON, SAMUEL	Tanfield Chambers, Bradford.
1404	1887, Dec. 19	JACKSON, WILLIAM TRESS . .	117, High Street, Sittingbourne.
2293	1891, Nov. 4	JAMES, CHRISTIAN HUGH . .	Rudchester, Wylam-on-Tyne.
1302	1886, Jan. 25	JEANS, MARK	Marlborough, Wilts.
2294	1891, Nov. 4	JENKINS, OSWALD	57, Colmore Row, Birmingham.

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786	1882, Feb. 13	JENKINSON, WILLIAM WILBERFORCE	} 6, Moorgate Street, E.C.
2012	1891, Mar. 14	JENNINGS, WILLIAM JOSEPH	4, St. Margaret's Street, Canterbury, Kent.
992	1883, Dec. 17	JEUDWINE, WILLIAM WYNNE	Chesterfield.
963	{ A. '83, May 25 } { F. '85, Jan. 26 }	*JOHNSON, HENRY	35, Coleman Street, E.C.
1420	{ A. '87, Dec. 19 } { F. '94, May 28 }	*JOHNSTON, WALTER HENRY	{ County Offices, Auditors' Department, Preston, Lanc.
2296	1891, Nov. 4	JOLLY, JOHN HAWKINS	27, East Mount Road, York.
1463	{ A. '88, Feb. 20 } { F. '91, May 25 }	*JONAS, HARRY MARSHALL	27, Market Place, Cambridge.
195	{ A. '69, Apr. 5 } { F. '78, Feb. 25 }	JONAS, HENRY	4, Whitehall, S.W.
95	1868, Jul. 27	JONAS, JOHN CARTER	27, Market Place, Cambridge.
1265	1885, Apr. 20	JONES, CHARLES, M.I.C.E.	Normanhurst, Ealing.
777	1882, Mar. 13	JONES, CHARLES FREDERICK	Eldon Chambers, 30, Fleet Street, E.C.
1703	1890, Jan. 27	JONES, FRANCIS WILLIAM	Ascott, near Wallingford, Berks
1619	{ A. '89, Apr. 1 } { F. '91, Dec. 7 }	*JONES, FREDERICK HERBERT	{ 25, Parliament Street, S.W., and 35, The Broadway, Ealing, W.
964	{ A. '83, May 25 } { F. '86, Dec. 6 }	*JONES, HENRY ARTHUR	11, Wellington Street, Strand, W.C.
1849	1890, Nov. 22	JONES, ISAAC M., A.M.I.C.E.	The Town Hall, Chester.
646	1881, Dec. 19	JONES, JAMES WILLIAM	54, Caledonian Road, Leeds.
673	{ A. '81, Dec. 19 } { F. '91, May 25 }	JONES, THOMAS	15, Great George Street, S.W.
1849	1887, Jan. 10	JONES, WALTER BUTLER CLOUGH	Mynydd, Elnyfed, Criccieth, North Wales.
2013	1891, Mar. 14	JONES, WILLIAM EDWARD	{ Anglesey Estate Office, Graig, Llanfair, P.G., Anglesey.
2297	1891, Nov. 4	JOPLING, JOSEPH	Temple Chambers, Temple Avenue, E.C.
2298	1891, Nov. 4	JOSELAND, CHARLES	Bank Buildings, Kidderminster.
1467	1888, Mar. 5	JOSEPH, DELISSA, F.R.I.B.A.	17 and 18, Basinghall Street, E.C.
1106	1884, Feb. 25	JOYCE, JOHN HALL	Blackfordby, near Burton-on-Trent.
2014	1891, Mar. 14	JOYNT, GEORGE LAWRENCE	Ballina, Co. Mayo, Ireland.
993	1883, Dec. 17	JURD, WILLIAM	10, Oxford Street, Southampton.
412	{ A. '75, Dec. 11 } { F. '87, Mar. 23 }	KAYE, JOHN EDWARD	Bretton Lodge, Wakefield, Yorkshire.
1190	1884, May 26	KEDGLEY, CHARLES	Hibernia Chambers, London Bridge, S.E.
580	1880, Nov. 8	KEIRLE, ROBERT, F.R.I.B.A.	Suffolk House, Laurence Pountney Hill, E.C.
1904	{ A. '90, Nov. 22 } { F. '92, July 4 }	*KEMP-SMITH, JAMES FRED.	Orsett, Essex.
975	1883, Nov. 12	KEMSLEY, JOSEPH WILLIAM	{ Woodford Green, and Corn Exchange, Romford, Essex.
1716	1890, Feb. 10	KENNFYD, JAMES.	31, Great James Street, Bedford Row, W.C.
1191	1884, May 26	KENT, GEORGE EDWARD	"Normanhurst," Cavendish Road, Southsea, Hants.
2299	1891, Nov. 4	KENWRICK, GEORGE	83, Colmore Row, Birmingham.
2300	1891, Nov. 4	KERL, WILLIAM JAMES	49, Copers Cope Road, Beckenham, Kent.
1614	1889, Apr. 1	KERSEY, ALEX. H., F.R.I.B.A.	21, Finsbury Pavement, E.C.
1850	1890, Nov. 22	KIDWELL, JOHN	St. Margaret's Bank, Rochester, Kent.
1125	{ A. '84, Mar. 10 } { F. '88, Dec. 10 }	*KING, ALFRED	7, St. James's Street, S.W.

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878	1888, Jan. 29	KING, FRANK HULME . . .	Horsham, Sussex.
1192	1884, May 26	KING, HENRY . . .	Stourbridge, Worcestershire.
2301	1891, Nov. 4	KING, JOHN BUSBY . . .	Albert Park, Abingdon, Berks.
1193	1884, May 26	KING, THOMAS . . .	Pembroke House, Portsmouth, Hants.
191	1869, Mar. 22	KING, SIR WILLIAM DAVID, D.L.	Stratford Lodge, Southsea, Hants.
908	1882, May 8	KINGSTON, SAMUEL . . .	Spalding, Lincoln.
1502	1888, Nov. 26	KIRBY, EDMUND, F.R.I.B.A.	5, Cook Street, Liverpool.
2302	1891, Nov. 4	KIRKEY, HERBERT . . .	Lythe Hall, near Whitby.
2303	1891, Nov. 4	KITTOW, JOHN . . .	West Holm, Launceston.
2487	1892, Feb. 26	KNIGHT, EDGAR WALSH . . .	29, John Street, Bedford Row, W.C.
853 {	A. '82, Dec. 18 } F. '89, Dec. 9 }	KNOWLES, HENRY . . .	Linden Grove, The Spa, Gloucester.
2304	1891, Nov. 4	KOCH, JOHN GODFREY . . .	{ Kuala, Kangsar, Perak, Straits Settlements, & 11, Palace Road, Upper Norwood, S.E.
2305	1891, Nov. 4	LACEY, JOHN TURK . . .	10, Buckingham Street, Strand, W.C.
2306	1891, Nov. 4	LAING, JOHN . . .	20, Bridge Street, Glasgow.
1553 {	A. '89, Jan. 14 } F. '91, Dec. 7 }	*LAMBERT, GODFREY CHARLES . . .	27, Chancery Lane, W.C.
107	1868, Aug. 3	LAMBERT, WILLIAM . . .	49, Finsbury Pavement, E.C.
2307	1891, Nov. 4	LAMMIE, GEORGE . . .	138, Hope Street, Glasgow.
1398	1887, Dec. 5	LANCASTER, CHARLES HOLLAND	{ Union Offices, Brougham Terrace, West Derby Road, Liverpool.
446	1876, Apr. 24	LANE, CECIL NEWTON . . .	Whiston Hall, Shifnal, Salop.
2090	1891, May 23	LANE, ERNEST LACAN . . .	{ 4, Victoria Buildings (Old Christchurch Road) Bournemouth.
1688	1890, Jan. 6	LANG, CHARLES AUGUSTUS . . .	3, King Street, Cheapside, E.C.
762	1882, Feb. 27	LANGRIDGE, GEORGE . . . (Member of Council)	The Broadway, Tunbridge Wells, Kent.
1645	1889, Dec. 9	LARMUTH, GEORGE HORATIO . . .	{ Wilton Chambers, 10, St. Ann's Square, Man- chester.
2015	1891, Mar. 14	LATTER, HUGH ROBINSON . . .	3, Market Square, Bromley, Kent.
145	1868, Nov. 9	LAURANCE, JOHN . . .	Sexton Barns, Peterboro'.
1089	1884, Feb. 11	LAW, EDMUND, F.R.I.B.A. . . .	St. Giles' Square, Northampton.
1717	1890, Feb. 10	LAWFORD, WILLIAM ROBINSON . . .	Underhill, Oswestry.
2091	1891, May 23	LAWRANCE, WALTER . . .	8, Delahay Street, S.W.
1944	1891, Jan. 17	LAWRENCE, ARTHUR . . .	Great Marlow, Bucks.
2308	1891, Nov. 4	LAWRENCE, PETER . . .	50, Frederick Street, Edinburgh.
1019 {	A. '83, Dec. 17 } F. '89, Nov. 11 }	LAWRENCE, WILLIAM ROBERT . . .	57 & 58, Chancery Lane, W.C.
513	1878, Nov. 11	LEANE, GEORGE HENRY . . .	21, Queen Anne's Gate, S.W.
1970 {	A. '91, Jan. 17 } F. '95, Mar. 4 }	*LEANING, HENRY JOHN . . .	28, John Street, Bedford Row, W.C.
1461	1888, Feb. 20	LEANING, JOHN . . .	28, John Street, Bedford Row, W.C.
2645	1894, Oct. 30	*LEATHER, GEORGE HERBERT . . .	Central Bank Chambers, Leeds.
60 {	A. '68, July 6 } F. '82, May 8 }	LEE, CHARLES WILLIAMS . . .	63, Lincoln's Inn Fields, W.C.
332	1874, Feb. 2	LEE, FREDERICK . . .	6, Great College Street, S.W.
1354 {	A. '87, Jan. 10 } F. '98, Nov. 13 }	*LEE, JOHN WILFRID . . .	Vestry Hall, Hampstead, N.W.

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1610	1889, Mar. 18	LEE, PHILIP SHIRLING . . .	{ 35, Craven Street, W.C., and Oaklands, Woodford, Essex.
2092	1891, May 23	LEE, SYDNEY W., F.R.I.B.A. .	63, Lincoln's Inn Fields, W.C.
1090	1884, Feb. 11	LEE, WILLIAM	143½, High Street, Guildford, Surrey.
229	1870, Feb. 7	LEES, JOHN	Reigate, Surrey.
2016	1891, Mar. 14	LEGARD, DIGBY CHARLES . .	Highington Hall, Lincoln.
836	1882, Dec. 18	LEMON, J., M.I.C.E., F.R.I.B.A.	Southampton.
675	{ A. '81, Dec. 19 } { F. '89, Mar. 18 }	LEONARD, HENRY HOLMES . .	202, Bishopsgate Street Without, E.C.
717	1882, Jan. 30	LEPPER, JOHN HARRAGE . . .	Town Hall, Bromley, Kent.
1156	1884, May 5	LE ROSSIGNOL, FRANCIS . . .	1, Gresham Buildings, Basinghall Street, E.C.
1176	1884, May 19	LEATHERIDGE, WALTER . . .	1, Leigham Villas, Plymouth.
1945	1891, Jan. 17	LETTIS, THOMAS HOLLINS . .	185, Earl's Court Road, S.W.
647	1881, Dec. 19	LIGHTFOOT, FRANCIS LOWRY .	3, Old Palace Yard, S.W.
901	1883, Feb. 26	LIGHTFOOT, HENRY LE BLANC	Corpus Christi College, Oxford.
1646	1889, Dec. 9	LINAKER, CHARLES EDWARD . .	Frodsham, Cheshire.
1361	1887, Jan. 24	LINES, RICHARD SAMUEL . . .	103, Hammersmith Road, W.
1405	1887, Dec. 19	LISTER-KAYE, CHARLES WILKINSON	{ Osberton, Worksop, Notts.
2310	1891, Nov. 4	LITTLE, WILLIAM	Hutton Hall, Penrith.
737	1882, Feb. 13	LITTLE, WILLIAM CUTLACK . .	Stag's Holt, March, Cambridgeshire.
949	{ A. '83, May 21 } { F. '88, Apr. 16 }	LITTLE, WILLIAM DAVIS . . .	Middleton Stoney, Bicester, Oxon.
2311	1891, Nov. 4	LITTLEWOOD, LIONEL	49, Doughty Street, W.C.
2312	1891, Nov. 4	LIVESAY, JOHN G., A.R.I.B.A. .	Cromartie House, Ventnor, Isle of Wight.
2098	1891, May 23	LLEWELLIN, DAVID MORGAN . .	Glanwern Offices, Pontypool.
2488	1892, Feb. 26	LLOYD, G. HAMILTON, A.M.I.C.E.	20, Bucklersbury, E.C.
648	1881, Dec. 19	LOCK, WILLIAM HENRY	Instow, North Devon.
2094	1891, May 23	LOCKYER, GILBERT EDWARD . .	12, Southampton Street, Fitzroy Square, W.
2313	1891, Nov. 4	LOFTHOUSE, ROGER	62, Albert Road, Middlesbrough-on-Tees.
393	1875, Mar. 15	LOFTS, HENRY	130, Mount Street, Grosvenor Square, W.
1164	{ A. '84, May 5 } { F. '91, June 29 }	LOFTS, HENRY FAIRLAM . . .	130, Mount Street, W.
1138	1884, Apr. 21	LOOKER, JOHN	High Street, Huntingdon.
2314	1891, Nov. 4	LORING, JOHN	The Cottage, Doddington, Nantwich, Cheshire.
1896	1887, Nov. 14	LOVEGROVE, HENRY, A.R.I.B.A. {	Eboracum, Herne Hill, S.E., and 314, Old Street, E.C.
1814	1890, May 29	LOVEYS, ARTHUR CLAMPITT . .	Moretonhampstead, Devon.
1126	{ A. '84, Mar. 10 } { F. '91, Feb. 16 }	LOW, ROBERT JOHN	49, Finsbury Pavement, and St. Alban's, Herts.
738	1882, Feb. 13	LOWE, CHARLES HARLOWE . . .	Hampstead Vestry Hall, Haverstock Hill, N.W.
1648	1889, Dec. 9	LUCAS, WILLIAM EDWARD . . .	Bexley, Kent.
1742	1890, Feb. 24	LUDLOW, WALTER ROBERT . . {	Dorridge, Knowle, Warwick, and 18, New Street, Birmingham.
2095	1891, May 23	LYNAM, CHARLES, F.R.I.B.A. .	Stoke-on-Trent.
917	{ A. '83, Apr. 2 } { F. '89, Nov. 11 }	LYSTER, THOMAS RICE SOMERVILLE	{ Bedford Office, Thorney, Peterborough.
1743	1890, Feb. 24	LYWOOD, EDWIN	Norman Court, Clatford, Andover, Hants.

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2315	1891, Nov. 4	MACCALLUM, ALEXANDER DUNCAN	63 & 64, New Broad Street, E.C.
2322	1891, Nov. 4	MCCRACKEN, WILLIAM . . .	Englesea House, Crewe.
2096	1891, May 23	MACDOUGALL, ROBERT . . .	67, Renfield Street, Glasgow.
2323	1891, Nov. 4	McINTYRE, PETER . . .	Gwydyr Ucha, Llanrwst, North Wales.
1615	1889, Apr. 1	MACIVER, COLIN . . .	23, Bold Street, Warrington.
2324	1891, Nov. 4	McKIE, HUGH U., M.I.C.E.	11, Victoria Street, S.W.
2316	1891, Nov. 4	MACKINTOSH, CHARLES JOHN MACLEAN	} Dunoon, Argyleshire.
1622	1889, Apr. 29	McLEAN, DONALD . . .	
2317	1891, Nov. 4	†MADGE, JOHN . . .	Hope End Estate Office, Ledbury, Hereford.
2318	1891, Nov. 4	MALLETT, WILLIAM ROBERT	35, Great St. Helen's, E.C.
161	1869, Jan. 25	MANN, CHARLES JOHN . . .	29, Great George Street, S.W.
2319	1891, Nov. 4	MANN, JABEZ, A.M.I.C.E.	Sevenoaks, Kent.
1784	1890, Apr. 14	MANN, JAMES BAGSHAW . . .	12, Lower Grosvenor Place, S.W.
1551	{ A. '89, Jan. 14 } { F. '93, Feb. 6 }	*MANN, ROBERT BAGSHAW . . .	29, Great George Street, S.W.
1946	1891, Jan. 17	MANNERS, HENRY ALFRED . . .	Buckminster Park, near Grantham.
1616	1889, Apr. 1	MARGERESON, CHARLES FREDERIC	New Square, Chesterfield.
1362	1887, Jan. 24	MARGETTS, JOHN WILLIAM . . .	12, High Street, Warwick.
1947	1891, Jan. 17	MARKS, HYMAN . . .	19, Ludgate Hill, E.C.
192	1869, Mar. 23	MARR, JAMES . . .	8, Adam Street, Adelphi, W.C.
470	{ A. '77, Jan. 15 } { F. '89, Dec. 9 }	MARRIOTT, GEORGE WHARTON . . .	35, Brompton Crescent, S.W.
626	{ A. '81, Nov. 14 } { F. '84, Nov. 24 }	MARSHALL, LIONEL HASLER . . .	Chippenham, Wilts.
1785	1890, Apr. 14	MARSHALL, PETER . . .	3, Hartshead, Sheffield.
2097	1891, May 23	MARSON, THOMAS . . .	Higham, Hinckley, and Leicester.
976	1883, Nov. 12	MARVIN, GEORGE DENNIS . . .	124-127, Mansion House Chambers, E.C.
434	1876, Mar. 20	MARTIN, GILSON . . .	Chatsworth, Chesterfield.
364	1875, Jan. 4	MARTIN, HOWARD . . .	{ 27, Chancery Lane, W.C., and Bolney Grange, Havelock Road, Croydon.
649	1889, Dec. 9	MARTIN, ROBERT FREWEN . . .	
1533	{ A. '88, Dec. 10 } { F. '92, July 4 }	*†MARTIN, THOMAS . . .	Mountsorrel, Loughborough.
704	{ A. '82, Jan. 16 } { F. '84, Jan. 28 }	MARTIN, WALTER . . .	Hampden House, N.W.
1539	1889, Feb. 25	MARVIN, ALBERT EDWARD . . .	Wainfleet, Lincolnshire.
1598	1889, Mar. 4	MARVIN, ALBERT EDWARD . . .	Mare Hill, Carisbrooke, Isle of Wight.
1091	1884, Feb. 11	MASON, WILLIAM ARTHUR . . .	Westgate, Louth, Lincolnshire.
1288	{ A. '85, Dec. 7 } { F. '88, Nov. 12 }	*MASON, FRANK, A.M.I.C.E.	31A, Colmore Row, Birmingham.
696	1882, Jan. 16	MASTERMAN, GEORGE HUGHES . . .	Tetley House, Kirkgate, Wakefield.
994	1883, Dec. 17	MATHEWS, GEORGE SPENCER . . .	35, Coleman Street, E.C.
995	1883, Dec. 17	MATHEWS, JOSEPH D., F.R.I.B.A.	15, Waterloo Street, Birmingham.
39	1868, Jun. 15	MATHEWS, WILLIAM . . .	11, Dowgate Hill, E.C.
1066	1884, Jan. 23	MATTHEWS, WILLIAM . . .	21, Augustus Road, Edgbaston, Birmingham.
1356	{ A. '87, Jan. 10 } { F. '90, Jan. 6 }	*MAXWELL, FRANCIS WILLIAM . . .	8, Delahay Street, S.W.
			41, Corporation Street, Manchester.

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2320	1891, Nov. 4	MAY, THOMAS HENRY . . .	12, George Street, Sheffield.
837	1882, Dec. 18	MAYNARD, EDWARD . . .	10, Petersham Road, Richmond, Surrey.
1948	1891, Jan. 17	MEADE, T. DE COURCY, M.I.C.E.	Kenmore, Didsbury, Manchester.
2534 {	{ A. '92, Nov. 28 } F. '93, Aug. 9 }	*MELLENFIELD, JAMES HENRY	45, Cazenove Road, Stoke Newington, N.
2098	1891, May 23	MELLER, WILLIAM GALLOWAY .	22, Cooper Street, Manchester.
552	1879, Dec. 8	MELLERSH, ALFRED WILLIAM .	Godalming, Surrey.
1949	1891, Jan. 17	MELLOR, THOMAS HENRY . . .	1, Laurence Pountney Hill, E.C.
1879	1887, Mar. 7	MENZIES, WILLIAM . . .	Surbiton House, Englefield Green, Surrey.
1972 {	{ A. '91, Jan. 17 } F. '94, Dec. 10 }	*MERRY, ARTHUR WALKER .	Market Place, Wallingford.
2099	1891, May 23	MERRY, THOMAS . . .	2, Guildhall Road, Northampton.
2646	1894, Oct. 30	*MESSENGER, HENRY. . .	77, Chancery Lane, W.C.
764	1882, Feb. 27	MESSENGER, WILLIAM HARRY .	50, High Street, Guildford, Surrey.
1223	1884, Dec. 8	*MICHELMORE, ALFRED . .	Berry Pomeroy Estate Office, Totnes, Devon.
1493	1888, Nov. 12	MIDDLETON, REGINALD EMPSON	17, Victoria Street, S.W.
2325	1891, Nov. 4	MIGOTTI, ALPHONZO, A.R.I.B.A.	{ 4, St. George's Mansions, Red Lion Square, W.C.
1568	1889, Jan. 23	MILES, WILLIAM FREDERICK .	37, Friar Lane, Leicester.
697	1882, Jan. 16	MILLAR, CHARLES WILLIAM . .	14, Grafton Street, W.
2326	1891, Nov. 4	MILLAR, WILLIAM GALT . .	10, High Street, Reading.
2327	1891, Nov. 4	MILLARD, EDWARD . . .	47, Finsbury Circus, E.C.
1177	1884, May 19	MILLS, SAMUEL MEALING . .	Orford Hill, Norwich.
1905	1885, Feb. 22	MILLS, WILLIAM EDWARD . .	49, Hamilton Square, Birkenhead
2328	1891, Nov. 4	MILLYARD, JOHN WILLIAM . .	Estate Office, Saltmarshes Castle, Bromyard.
1950	1891, Jan. 17	MILNES, ELI . . .	99, Swan Arcade, Bradford.
477	1877, Feb. 12	MINTER, WILLIAM . . .	81, Bondgate, Darlington.
2463 {	{ A. '91, Nov. 4 } F. '92, Oct. 12 }	*MITCHELL, GEORGE SHARMAN .	Upper Adhurst, Petersfield, Hants.
1232 {	{ A. '84, Dec. 8 } F. '90, Nov. 10 }	*MIXER, EDWARD . . .	44, Charing Cross, S.W.
1718	1890, Feb. 10	MONCKTON, HRY. P., F.R.I.B.A.	32, Walbrook, E.C.
2330	1891, Nov. 4	MONIER-WILLIAMS, STANLEY FAITHFULL, A.R.I.B.A. . .	{ Oratory Studios, 16, Fulham Road, S.W.
1951	1891, Jan. 17	MONTAGU, HENRY HAVELOCK .	36, Coleman Street, E.C.
1771	1890, Mar. 24	MOODY, THOMAS . . .	20, Cockspur Street, S.W.
1576	1889, Feb. 11	MOORE, ALFRED . . .	{ 144, Mile End Road, E., and 7, Leadenhall Street, E.C.
2100	1891, May 23	MOORE, ALGERNON . . .	Bridge Road, East Molesey, Surrey.
1165 {	{ A. '84, May 5 } F. '88, May 14 }	*MOORE, HAROLD EDWARD . .	41, Bedford Row, W.C.
2331	1891, Nov. 4	MORGAN, BENJAMIN BRAUFORD.	6, Bank Street, Norwich.
1772	1890, Mar. 24	MORRIS, CHARLES . . .	{ The Lodge, Radcliffe-on-Trent, Notts, and 27, Bridlesmith Gate, Nottingham.
1443	1888, Jan. 23	MORRIS, EDWARD HENRY . .	Chirbury, Salop.
2101	1891, May 23	MORRIS, GEORGE FIELD . .	67 and 68, Cheapside, E.C.
2332	1891, Nov. 4	MORRIS, HAROLD GEORGE . .	67 and 68, Cheapside, E.C.

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1119	1884, Mar. 10	MORRIS, HERBERT	Lewes, Sussex.
2538	{ A. '92, Nov. 28 F. '94, Oct. 10 }	*MORRIS, RICHARD PERCIVAL	44, Inderwick Road, Stroud Green, N.
1127	{ A. '84, Mar. 10 F. '91, Jan. 5 }	MOSS, THOMAS WALTER	7, Gray's Inn Place, Gray's Inn, W.C.
1895	{ A. '90, Nov. 22 F. '93, Apr. 10 }	*MOULD, GRAHAM HARLEY	25, Great James Street, Bedford Row, W.C.
965	{ A. '88, May 25 F. '91, Oct. 15 }	MOYES, JOHN HELENUS	26, Trinity Street, Cambridge.
2145	{ A. '91, May 23 F. '92, May 30 }	*MÜLLER, JOHN J., A.R.I.B.A. . . .	41, Archway Road, Highgate, N.
2017	1891, Mar. 14	MUNDY, HERBERT	Manvers Street, Trowbridge, Wilts.
2334	1891, Nov. 4	MUNDY, THOMAS E., A.R.I.B.A. . . .	12, Buckingham Street, Adelphi, W.C.
2335	1891, Nov. 4	MUNRO, DANIEL	39, Hope Street, Glasgow.
765	1882, Feb. 27	MUNRO, PHILIP	{ 2, St. Stephen's Chambers, New Baldwin Street Bristol.
1406	1887, Dec. 19	MURRAY, GILBERT	Elvaston Estate Office, Derby.
1952	1891, Jan. 17	MURRAY, WILLIAM	School Board Offices, Victoria Embankment, W.
809	1882, May 8	MYNORS, WALTER CHARLES } TOWERS	Little Ingestre, Stafford.
2336	1891, Nov. 4	MYRES, JOHN JAMES, A.M.I.C.E. . . .	15, Chapel Street, Preston.
1591	1889, Feb. 25	NAPIER, HENRY BURROUGHS	Chippenham, Wilts.
164	{ A. '69, Jan. 25 F. '82, Mar. 13 }	NASH, ALFRED JAMES	Farnham, Surrey.
2018	1891, Mar. 14	NEALE, GEORGE JAMES	25, Motcomb Street, Belgrave Square, S.W.
531	1879, Feb. 3	NEAME, FREDERICK	Macknade, Faversham, Kent.
795	1882, Apr. 24	NEATE, ARTHUR WEBB	Albion House, Newbury, Berks, and Hungerford.
1744	1890, Feb. 24	NETHERSOLE, WILLIAM	Deal, Kent.
1314	1886, May 3	NEVE, HERBERT	Hole Park, Rolvenden, Kent.
2337	1891, Nov. 4	NEVETT, FRANCIS WALTER	54, Claremont Terrace, Fulwood, Preston.
1650	1889, Dec. 9	NEVETT, THOMAS	41, Fishergate, Preston, Lancashire.
2489	1892, Feb. 26	NEVITT, GEORGE	Church Street, Rugeley.
2102	1891, May 23	NEW, EDW. VORLEY, A.R.I.B.A. . . .	62, George Street, Portman Square, W.
1719	1890, Feb. 10	NEWILL, ROBERT HENRY	Lydbury North, Shropshire.
1276	1885, Dec. 7	NEWMAN, ARTHUR H., F.R.I.B.A. . . .	19A, Tooley Street, London Bridge, S.E.
856	{ A. '82, Dec. 18 F. '89, Nov. 11 }	NEWMAN, CHARLES HENRY	34, Savile Row, W.
289	1872, Dec. 9	NEWMAN, FRANCIS	Ryde, Isle of Wight.
2540	{ A. '92, Nov. 28 F. '94, Oct. 10 }	*NEWMAN, SAMUEL FRANK	33 and 34, Savile Row, W.
2338	1891, Nov. 4	NEWMAN, THOMAS HARRY	Rayne, Essex.
566	{ A. '80, Jan. 19 F. '86, Apl. 12 }	NEWMARCH, HENRY CHARLES	61, Lincoln's Inn Fields, W.C.
1041	1884, Jan. 14	NEWSAM, SAMUEL WATERHOUSE	3, East Parade, Leeds.
739	1882, Feb. 18	NEWSON, HARRY CARSS	57, Lincoln's Inn Fields, W.C.
1020	{ A. '83, Dec. 17 F. '89, Nov. 11 }	NEWTON, THOMAS EDWIN	45, Jewry Street, Winchester.
374	1875, Jan. 18	NICHOLS, DANIEL CUBITT	3, Howard Street, Strand, W.C.
		(Member of Council)	
1953	1891, Jan. 17	NICHOLSON, ANSELM	55, Parliament Street, S.W.
2339	1891, Nov. 4	NICHOLSON, THOS. C., F.R.I.B.A. . . .	{ Blaydon-on-Tyne, and 24, Grainger Street West Newcastle-on-Tyne.

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2340	1891 Nov. 4	NICHOLSON, WILLIAM ABERNETHY	29, Queen Street, E.C.
2490	1892, Feb. 26	NOCK, BENJAMIN BOWEN . . .	48, Queen Street, Wolverhampton.
401	1875, Apr. 26	NOCKOLDS, MARTIN	Saffron Walden, Essex.
1264	1885, Mar. 28	NOEL, BYRON BRUCE	East Horsley, Leatherhead.
435	1876, Mar. 20	NORMAN, JAMES MAURICE . . .	Uxbridge, Middlesex.
1720	1890, Feb. 10	NORMAN, WILLIAM HORACE . .	34, Great George Street, S.W.
502 { A. '78, Feb. 11 } { F. '90, Mar. 10 }		NORRIS, WALTER HENRY . . .	60, Fore Street, Hertford.
85	1868, Jul. 20	NORTH, GEORGE	Palace Chambers, 9, Bridge Street, S.W.
958	1883, May 25	*NORTH, GEORGE FREDERIC . .	Stratfield Saye, Mortimer, Berks.
1569	1889, Jan. 28	NORTHCROFT, HENRY	57, Charing Cross, S.W.
2019	1891, Mar. 14	NORTON, THOMAS HERBERT . .	Milton Estate Office, Priestgate, Peterborough.
255	1871, Feb. 18	NOTLEY, RICHARD A., F.R.I.B.A.	80, Cornhill, E.C.
698	1882, Jan. 16	NOTLEY, ROBERT PLEDGE . . .	35, Bucklersbury, E.C.
676 { A. '81, Dec. 19 } { F. '87, Feb. 7 }		NOTTAGE, WILLIAM GRIGGS . .	High Street, Slough, and Windsor.
1763	1890, Mar. 10	NUTTALL, THOMAS	12, Market Street, Bury, Lancashire.
59	1868, Jul. 6	OAKLEY, CHRISTOPHER	10, Waterloo Place, S.W.
		(Vice-President)	
2465 { A. '91, Nov. 4 } { F. '94, Oct. 10 }		*OAKLEY, CHRISTOPHER PERCIVAL	10, Waterloo Place, S.W.
2020	1891, Mar. 14	OAKLEY, EDWARD BENJAMIN . .	Dulverton, Parkstone, Dorset.
1875 { A. '91, Jan. 17 } { F. '92, Dec. 5 }		*OAKLEY, JOHN HUBERT	10, Waterloo Place, S.W.
1976 { A. '91, Jan. 17 } { F. '94, Jan. 22 }		*OGDEN, MICHAEL GUY	37, Walbrook, E.C.
1468	1888, Mar. 5	OLDROYD, LINLEY	5, Oxford Place, Leeds.
2341	1891, Nov. 4	OLIPHANT, GEORGE A. J. . . .	Chatley House, Norton St. Philip, near Bath.
2342	1891, Nov. 4	OLIVER, CHARLES EDWARD . .	Oakfield, Shotley Bridge, Co. Durham.
1306	1886, Feb. 22	ORGILL, JOHN BERWICK	21, Hart Street, Bloomsbury Square, W.C.
2343	1891, Nov. 4	ORR, CECIL, A.R.I.B.A.	2, Prince's Mansions, Victoria Street, S.W.
1896 { A. '90, Nov. 22 } { F. '92, Nov. 14 }		*OSENTON, GEORGE, JUN. . . .	Oxted, Surrey.
1851	1890, Nov. 22	OSMOND, EDWARD	Oakford, Upton Pyne, Devon.
1721	1890, Feb. 10	OWEN, HENRY	Dana Chambers, Shrewsbury.
2344	1891, Nov. 4	OWEN, RICHARD NEWSHAM . . .	Haughton, Tarporley.
1098 { A. '84, Feb. 11 } { F. '90, Jan. 6 }		OWEN, THOMAS HENRY	High Street, Haverfordwest, Pembrokeshire.
183	1869, Mar. 8	OWEN, THOMAS RULE	High Street, Haverfordwest, Pembrokeshire.
1628	1889, Nov. 11	OWEN, WILLIAM SCOTT	Cefngwifed, near Newtown, Montgomeryshire.
2021	1891, Mar. 14	PAGE, GEORGE FREDERICK . . .	Eagle Chambers, Kingston-on-Thames.
1042	1884, Jan. 14	PAGE, ROBERT, F.R.I.B.A. . . .	9, Denman Street, London Bridge, S.E.
406 { A. '75, Nov. 8 } { F. '81, April 4 }		PAIN, COARD SQUAREY	{ 14, North John Street, Liverpool, and 5, Victoria Street, Westminster, S.W.
966 { A. '83, May 25 } { F. '94, Oct. 10 }		*PAIN, JAMES	St. Mary's Street, Ely, Cambridgeshire.
2345	1891, Nov. 4	PAIN, WILLIAM, F.R.I.B.A. . .	63, Lincoln's Inn Fields, W.C.

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2846	1891, Nov. 4	PAINE, EDWARD JABEZ . . .	11, Great James Street, Bedford Row, W.C.
2847	1891, Nov. 4	PAISLEY, JOSEPH	Waresley, Sandy, Bedfordshire.
1535	{ A. '88, Dec. 10 } { F. '92, Oct. 12 }	*PALAMOUNTAIN, JOSEPH WM. . .	Cloverley Estate Office, Whitchurch, Salop.
1815	1890, May 29	PARK, PHILIP SAMUEL	18, Winckley Street, Preston, Lancashire.
1815	1886, May 8	PARK, WILLIAM PHILIP	18, Winckley Street, Preston, Lancashire.
1883	1887, Mar. 21	PARKER, CHARLES ALFRED . . .	{ 21, Finsbury Circus, E.C., and Woodhouse Mortimer Place, Maldon, Essex.
1269	1885, May 18	PARKER, JOHN, A.M.I.C.E. . . .	Mansion House, Hereford.
2848	1891, Nov. 4	PARKER, STANLEY	427, Edgware Road, W.
567	{ A. '80, Jan. 19 } { F. '88, Jan. 9 }	PARKER, THE HON. CECIL } THOMAS }	Eccleston, Chester.
1852	1890, Nov. 22	PARKER, WILLIAM HENRY	3, Foregate Street, Worcester.
628	{ A. '81, Dec. 5 } { F. '84, Nov. 24 }	PARKIN, JOHN ROBT., A.M.I.C.E. .	Idridgehay, near Derby.
1853	1890, Nov. 22	PARKIN, WILLIAM	Babworth, Retford, Notts.
865	1883, Jan. 15	PARMETER, FRANK	Middle Lees, Clitheroe, Lancashire.
2104	1891, May 23	PARNACOTT, ALFRED	{ 93, York Road, Westminster Bridge Road, S.E. and The Ferns, Laurel Grove, Penge, S.E.
2849	1891, Nov. 4	PARNIE, JAMES	27, Union Street, Glasgow.
910	1888, Mar. 12	PARR, SAMUEL	New Broad Street House, E.C.
2022	1891, Mar. 14	PARR, SAMUEL GEORGE	New Broad Street House, E.C.
1679	{ A. '89, Dec. 9 } { F. '93, Nov. 13 }	*PARRIS, CHARLES JOHN	Buckhurst, Tunbridge Wells, Kent.
1422	{ A. '87, Dec. 19 } { F. '91, Mar. 16 }	*PARRY, RICHARD, A.M.I.C.E. . .	27, Great George Street, S.W.
1503	1888, Nov. 26	PARSONS, FRANK DONISTHORPE .	Misterton, Crewkerne, Somerset.
1855	1890, Nov. 22	PARSONS, FREDERICK CECIL . . .	163, North Street, and 9, Marine Parade, Brighton.
288	1872, Dec. 9	PARSONS, HENRY	Misterton, Crewkerne, Somerset.
1734	1890, Mar. 10	PARSONS, HENRY JOHN DONNE .	Bampfylde House, Exeter.
957	{ A. '83, May 25 } { F. '88, Dec. 10 }	PARSONS, ROBERT MAURICE } PETERS }	Misterton, Crewkerne, Somerset.
1897	{ A. '90, Nov. 22 } { F. '94, Oct. 10 }	*PARTRIDGE, EDWARD JOHN . . .	{ 7, Crumpsall Villas, Selwyn Court, Richmond, Surrey.
1745	1890, Feb. 24	PATERSON, CHARLES	Cantord Estate Office, Wimborne, Dorsetshire.
601	1881, Jan. 24	PATTISSON, JACOB LUARD, C.B. .	Claremont Lodge, Cobham, Surrey
907	{ A. '83, May 25 } { F. '88, May 14 }	*PAULL, ALAN	6, Quality Court, Chancery Lane, W.C.
583	1880, Dec. 13	PAYNE, ALEXANDER, F.R.I.B.A. .	Norfolk House, Victoria Embankment, W.C.
719	1882, Jan. 30	PAYNE, FREDERICK	Town Hall, Bromley, Kent.
2850	1891, Nov. 4	PEAR, JOHN GRIGG	North Curry, near Taunton.
2351	1891, Nov. 4	PEARSE, WILLIAM	Stoliford, Modbury, Devon.
2352	1891, Nov. 4	PEARSON, ALFRED, A.M.I.C.E. . .	Estate Offices, Dukinfield.
1270	1885, May 18	PECK, WILLIAM ROLAND	1, Cockspur Street, S.W.
2353	1891, Nov. 4	PEIRSON, GEORGE BRODRICK . . .	Baldersby, S.O., Yorkshire.
2354	1891, Nov. 4	PEIRSON, HENRY THOMAS	Brancepeth, Co. Durham.
2105	1891, May 23	PELLS, ARTHUR	Beccles and Lowestoft.
1651	1889, Dec. 9	PEMBERTON, CHARLES OLIVER } PAGET }	69, Temple Row, Birmingham.

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21	1868, Jun.	15	PENFOLD, JOHN W., F.R.I.B.A. (Honorary Secretary)	30, Great George Street, S.W.
452	1876, May	8	PEPPERCORN, JOHN HUTCHINSON	Manor House, Eaton Socon, St. Neots.
355	1891, Nov.	4	PERKINS, JOSEPH	Laughton, Rugby.
341	{ A. '86, Dec. 6 } { F. '91, May 25 }		*PERKINS, WALTER FRANK . . .	Portwood House, Southampton, Hants.
1106	1891, May	23	PERRIAM, ALFRED JOSEPH . . .	52, St. John's Villas, Upper Holloway, N.
2356	1891, Nov.	4	PETHER, HARRY	8, Craig's Court, Charing Cross, S.W.
1252	1885, Feb.	9	*PETO, JAMES WINDER	6, Market Place, Reading, Berks.
428	1876, Feb.	21	PHILLIPS, FREDERICK HAMILTON	12, Belgrave Gardens, Dover, Kent.
1652	1889, Dec.	9	PHILLIPS, WILLIAM EDWIN . . .	Eagle Chambers, Kingston-on-Thames.
1043	1884, Jan.	14	PICKERING, WILLIAM CLOVES . .	Rhewl House, Mostyn, Flintshire.
651	1881, Dec.	19	PICKSTOCK, JOHN	Castle Hill, Winchester, Hants.
2357	1891, Nov.	4	PIERCY, HENRY ONSLOW	The Elms, Lowthorpe.
1617	1889, Apr.	1	PIERSON, CHARLES	29, Cooper Street, Manchester.
968	{ A. '88, May 25 } { F. '86, Dec. 6 }		*PILDITCH, PHILIP EDWARD . . .	{ 17, Parliament Street, S.W., and Weybridge, Surrey.
1704	1890, Jan.	27	PINKS, EDWIN CHARLES	45, Parliament Street, S.W.
2358	1891, Nov.	4	PINNEY, JOHN GEORGE	Brooklyn House, Axminster.
2023	1891, Mar.	14	POPPE, JOHN	Groves Hall, Sleights, near Whitby.
2359	1891, Nov.	4	PORTER, JOHN MERRY	The Estate Office, Colwyn Bay, N. Wales.
2360	1891, Nov.	4	POSTON, HENRY	39, Lombard Street, E.C.
1977	{ A. '91, Jan. 17 } { F. '94, Nov. 12 }		*POTTER, HERBERT GEORGE . . .	22, High Street, Hampstead, N.W.
2361	1891, Nov.	4	POTTS, JAMES	Stanbeck, Workington, Cumberland.
224	1870, Jan.	24	POUNDLEY, JOHN EDWARD . . .	Kerry, Newtown, Montgomeryshire.
487	1877, May	14	POWELL, EVAN	Broomcliffe, Llanidloes, Montgomeryshire.
1856	1890, Nov.	22	POWELL, FREDERICK ATKINSON . .	{ 344, Kennington Park Road, S.E., and Agincourt Square, Monmouth.
1022	{ A. '88, Dec. 17 } { F. '91, Mar. 16 }		POWELL, HUBERT JOHN	Hill Lodge, Lewes, Sussex.
342	{ A. '74, Feb. 16 } { F. '80, Nov. 22 }		POWELL, REGINALD HENRY . . .	St. Swithun's Lane, High Street, Lewes, Sussex.
2362	1891, Nov.	4	PREEDY, FREDERIC	Caldecote, St. Neots, Huntingdonshire.
1536	{ A. '88, Dec. 10 } { F. '92, Dec. 5 }		*PRESTON, SAMUEL DAVID	Vestry Hall, Camberwell, S.E.
1781	1890, Apr.	14	PRICE, FRANCIS HOLBORROW GLYNN	{ Longlands Place, Swansea, Glamorganshire.
2363	1891, Nov.	4	PRICE, JOHN, A.M.I.C.E.	Lark Lane, Toxteth Park, Liverpool.
1205	{ A. '84, May 26 } { F. '90, Nov. 10 }		PRICE, THOMAS WILLIAM	Billiter Square Buildings, E.C.
2107	1891, May	23	PRIDMORE, ALBERT EDWARD . . .	{ 2, Broad Street Buildings, E.C., and 28, High Street, Watford, Herts.
1857	1890, Nov.	22	PRIDMORE, ARTHUR STIRLING . .	140, Junction Road, N.
1816	1890, May	29	PRITCHETT, ELLIS HERBERT . . .	Regent Circus, Swindon, Wilts.
2364	1891, Nov.	4	PROTHEROE, WILLIAM HENRY . .	67 and 68, Cheapside, E.C.
1273	1885, Nov.	9	PUNCHARD, FREDERICK	{ Underley Estate Office, Kirkby Lonsdale, West- moreland.

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1694	{ A. '90, Jan. 6 F. '95, Feb. 18 }	*PUNCHARD, FREDERICK BURT	Enville Estate Office, near Stourbridge.
1080	{ A. '84, Jan. 28 F. '89, Jan. 28 }	PURCHASE, EDWARD KEYNES	{ Mansion House Chambers, 11, Queen Vic Street, E.C.
1858	1890, Nov. 22	PURVES, PETER	Huntingdon, and 45, Lincoln's Inn Fields, W.
1224	1884, Dec. 8	PYM, GEORGE EDWIN	Doods. Reigate, Surrey.
2024	1891, Mar. 14	QUICK, FREDERIC W., A.M.I.C.E.	13, Montpelier Place, Brighton, Sussex.
796	1882, Apr. 24	RABY, JOSEPH WALKER	78, Cross Street, Manchester.
1515	1888, Dec. 10	*RADFORD, WILLIAM, M.I.C.E.	19, Brazennose Street, Albert Square, Manchee
1954	1891, Jan. 17	RADFORD, WILLIAM HAROLD	19, Brazennose Street, Albert Square, Manchee
1462	1888, Feb. 20	RAIKES, COLONEL GEORGE WHITTINGTON	{ Ragley Estate Office, Alcester, Redditch.
2025	1891, Mar. 14	RANDALL, RICHARD	Royal Engineers' Office, Curragh Camp, Irell
2366	1891, Nov. 4	RANSFORD, BENJAMIN HERBERT	County Club, Weston-super-Mare, Somerset.
2108	1891, May 23	RANSOM, THOMAS ROBERT	{ 32, Lowndes Street, Belgrave Square, S.W., 12, Lower Grosvenor Place, S.W.
902	1883, Feb. 26	RAWLENCE, ERNEST ALFRED	Newlands, Salisbury.
2026	1891, Mar. 14	RAWLENCE, JAMES EDWARD	The Canal, Salisbury, Wilts.
1859	1890, Nov. 22	RAWLINS, HY. ADAIR, A.R.I.B.A.	46, Queen Victoria Street, E.C.
2367	1891, Nov. 4	RAWLINS, WILLIAM	Kent Fire Office, Maidstone, Kent.
134	1868, Oct. 26	RAYNBIRD, HUGH EDWARD	Basingstoke, Hants.
1516	1888, Dec. 10	REA, JOHN MARCUS BEAUMONT.	{ 8, Winckley Street, Preston, and Lyth Lancashire.
1139	1884, Apr. 21	READ, GEORGE HUNTLY	27, Albany Street, N.W.
2109	1891, May 23	REBBECK, EDWARD WISE	Gervis Place, Bournemouth.
2368	1891, Nov. 4	REBBECK, THOMAS WARREN	Gervis Place, Bournemouth.
839	1882, Dec. 18	REDDALL, DAVID GADSDEN	10, South Street, Finsbury, E.C.
1860	1890, Nov. 22	REES, ITHEL TREHARNE, M.I.C.E.	Guildhall Chambers, Cardiff.
584	1880, Dec. 13	REES, WILLIAM ANDREW	7, Cornhill, E.C.
544	1879, Apr. 28	REES, WILLIAM GEORGE	Holly House, Newport, Monmouthshire.
2369	1891, Nov. 4	REES, WILLIAM JOHN	Cradock Street, Swansea.
2370	1891, Nov. 4	REEVE, KINGSNORTH.	{ 27, High Street, Rye, Sussex, and High Str Lydd, Kent.
929	{ A. '83, Apr. 16 F. '89, Jan. 28 }	REID, FRANCIS	Bucksford, Ashford, Kent.
514	1878, Nov. 11	REID, PATRICK SANDEMAN	20, John Street, Adelphi, W.C.
937	1883, April 30	RENDELL, ARTHUR STEPHEN	Market Terrace, Newton Abbot.
802	{ A. '82, Apr. 24 F. '90, Jan. 27 }	REX, FRANCIS HERBERT	311, Kentish Town Road, N.W.
172	{ A. '69, Feb. 8 F. '82, Feb. 13 }	REX, WILLIAM	311, Kentish Town Road, N.W.
453	{ A. '76, May 8 F. '81, Dec. 6 }	RICH, ROBERT	Didcot, Berks.
890	1883, Feb. 12	RICHARDS, ALFRED	Tottenham, N., and 18, Finsbury Circus, E.C.
2027	1891, Mar. 14	RICHARDS, GEORGE EDWARD	St. John's Hill, Wimborne, Dorset.
2371	1891, Nov. 4	RICHARDS, HENRY	51, Grosvenor Road, S.W.

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1197	1884, May 23	RICHARDS, HENRY BRINLEY	79, Coleman Street, E.C.
2372	1891, Nov. 4	RICHARDS, THOMAS ROBERT	Bedford Row Chambers, 42, Theobald's Road, W.C.
2110	1891, May 23	RICHARDS, WILLIAM	Tottenham, N., and 18, Finsbury Circus, E.C.
1955	1891, Jan. 17	RICHARDSON, CHARLES	13, Barn Hill, Stamford, Lincolnshire.
1746	1890, Feb. 24	RICHARDSON, GEORGE	5, Lonsdale Street, Carlisle.
1817	1890, May 29	RICHARDSON, JAMES	13, Barn Hill, Stamford, Lincolnshire.
461	1876, Dec. 18	RICHARDSON, JOHN, M.I.C.E.	Methley Park, Leeds.
2466	{ A. '91, Nov. 4 F. '92, May 30 }	*RICHARDSON, OLIVER ARCHER	3, Almorah Road, Canonbury, N.
1705	1890, Jan. 27	RICHMOND, WALTER COLERIDGE	The Hollies, Potter's Bar, N.
303	1873, Feb. 10	RICKMAN, THOMAS M., A.R.I.B.A. (Vice-President)	8, Montague Street, Russell Square, W.C.
2373	1891, Nov. 4	RIDDETT, WILLIAM HAMMOND	Townhall Chambers, Ryde, Isle of Wight.
914	1883, April 2	RIDDLE, FREDERICK HENRY BRIMBLE	139, Trinity Road, Tooting, S.W.
2028	1891, Mar. 14	RIGDEN, FRANCIS	Salisbury, Wilts.
724	{ A. '82, Jan. 30 F. '83, Jan. 29 }	RIGDEN, HENRY WILLIAM	Salisbury, Wilts.
2111	1891, May 23	RIGG, CHARLES	24, High Street, Cardiff.
1517	1888, Dec. 10	RIGHTON, EDWARD GRANTHAM	High Street, Evesham, Worcestershire.
2374	1891, Nov. 4	RIX, GEORGE KERRY	Somerleyton, near Lowestoft.
423	{ A. '76, Jan. 24 F. '90, Nov. 10 }	ROBERTS, CHARLES QUINCEY	2, South Square, Gray's Inn, W.C.
1722	1890, Feb. 10	ROBERTS, HENRY CROYDON	16, Abchurch Lane, E.C.
120	1868, Aug. 17	ROBERTS, RICHARD	42, New Broad Street, E.C.
1786	1890, Apr. 14	ROBERTS, THOMAS, A.M.I.C.E.	Portmadoc, North Wales.
754	{ A. '82, Feb. 13 F. '91, May 25 }	ROBEY, ROBERT	Oaklands, East Tytherley, Romsey, Hants.
1445	1888, Jan. 23	ROBINS, EDWARD	22, Conduit Street, W.
72	1868, Jul. 13	ROBINS, EDWARD C., F.R.I.B.A.	46, Berners Street, Oxford Street, W.
603	1881, Jan. 24	ROBINS, WILLIAM H., A.M.I.C.E.	82A, New Street, Birmingham.
1850	1887, Jan. 10	ROBINSON, CHARLES EDWARD	36, Coleman Street, E.C.
2112	1891, May 23	ROBINSON, EDMUND ARTHUR	Lee-on-the-Solent, Gosport, Hants.
2375	1891, Nov. 4	ROBINSON, GEORGE EDWARD	9, Tacketts Street, Blackburn.
618	1881, Apr. 4	ROBINSON, HENRY, M.I.C.E.	Westminster Chambers, 13, Victoria Street, S.W.
2407	{ A. '91, Nov. 4 F. '94, Oct. 10 }	*ROBINSON, HENRY HERBERT	8, Oxford Mansions, Oxford Circus, W.
510	1882, May 8	ROBINSON, NATHANIEL WISHART	Marlowes, Hemel Hempstead, Herts.
291	1872, Dec. 9	ROBSON, EDWARD ROBERT, F.R.I.B.A.	Palace Chambers, 9, Bridge Street, S.W., and 2, The Paragon, Blackheath, S.E.
1453	1888, Feb. 6	RODERICK, JOHN	2, Temple Row West, Birmingham.
1717	1890, Feb. 24	RODHAM, JOHN	16, Finkle Street, Stockton-on-Tees.
1225	1884, Dec. 8	ROGERS, WILLIAM BENNETT	78, Gloucester Road, South Kensington, S.W.
1570	1889, Jan. 28	ROKER, MITCHEL JOHN	Snowdenham, Branksome Park, Bournemouth.
361	{ A. '74, Dec. 7 F. '76 Jan. 24 }	ROLLISTON, JOHN FOWKE LANCELOT (Member of Council)	Grey Friars, Leicester.
969	{ A. '83, May 25 F. '89, Jan. 28 }	*ROLLISTON, WILLIAM GUSTAVUS STANHOPE	Grey Friars, Leicester.

Dip. Date of Election
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FELLOWS.

2636	{ A. '94, Feb. 23 } F. '94, Oct. 10 }	*RONEY-DOUGAL, JOHN DOUGAL .	Castle Ashby, Northampton.
1844	{ A. '86, Dec. 6 } F. '87, Nov. 14 }	*ROODS, ALFRED	School Board Offices, Victoria Embankment.
2113	1891, May 23	ROOKE, ALFRED BRADLEY . .	11, Great James Street, Bedford Row, W.C.
2376	1891, Nov. 4	ROONEY, SAMUEL	Cefn Mably Chambers, 9, Quay Street, Cardiff.
1681	{ A. '89, Dec. 9 } F. '91, Jan. 5 }	ROPER, JOHN SIMPSON, A.M.I.C.E.	32, Market Square, Lancaster.
980	{ A. '83, Nov. 12 } F. '87, Jan. 10 }	ROPER, WILLIAM	3, The Pantiles, Tunbridge Wells. Kent.
1483	1888, Apr. 30	ROSE, THOMAS	21, Prince of Wales Road, Norwich.
507	1878, Apr. 8	ROWE, RICHARD REYNOLDS, } M.I.C.E., F.R.I.B.A. }	Park House, Cambridge.
940	{ A. '83, Apr. 30 } F. '90, Jan. 27 }	ROWLANDSON, CHRISTOPHER .	The College, Durham.
2114	1891, May 23	ROYCE, DAVID NEEDHAM . .	Oakham, Rutland.
2115	1891, May 23	ROYCE, JOHN	Oakham, Rutland.
2029	1891, Mar. 14	RUAAULT, JOHN GUSTAVE PETER	17, Southampton Street, Bloomsbury, W.C.
2030	1891, Mar. 14	RUDKIN, ARTHUR JOHN . . .	St. Ann's, Bromley, Kent.
2377	1891, Nov. 4	RUDMAN, SYDNEY CHARLES . .	Windlestone, Ferry Hill, Co. Durham.
2378	1891, Nov. 4	RUMBALL, AUBREY	St. Alban's, Herts.
2379	1891, Nov. 4	RUMBLE, HARRY HUMFREY . .	Court House, St. Marylebone, W.
970	{ A. '83, May 25 } F. '90, Jan. 6 }	*RUNDLE, EDWARD COLLINS . .	Bedford Office, Tavistock, Devon.
1028	{ A. '83, Dec. 17 } F. '89, Feb. 25 }	RÜNTZ, ERNEST AUGUSTUS . .	22, Moorgate Street, E.C.
315	{ A. '73, Dec. 8 } F. '75, Nov. 8 }	RUSHWORTH, EDMUND WALTER	22, Savile Row, W.
2031	1891, Mar. 14	RUSSELL, MURRAY LAWRENCE .	3, King Street, Cheapside, E.C.
1261	1885, Mar. 9	RUTHERFORD, JAMES.	Kirk-leatham, Redcar, Yorkshire.
1547	1889, Jan. 14	RUTHERFORD, JAMES AUGUSTINE	Estate Office, Highclere Park, Newbury.
998	1883, Dec. 17	RUTLEY, CHARLES	11, Dowgate Hill, E.C.
1518	1890, May 29	RUTLEY, FRANK	11, Dowgate Hill, E.C.
2380	1891, Nov. 4	RYAN, WILLIAM PATRICK. . . .	{ Thorner's Chambers, Ingram Court, Fenchurch Street, E.C.
466	{ A. '76, Dec. 18 } F. '89, Nov. 8 }	RYDE, ARTHUR LYON	29, Great George Street, S.W.
909	{ A. '83, Feb. 26 } F. '91, June 29 }	RYDE, CHARLES RERTRAM . . .	29, Great George Street, S.W.
421	1876, Jan. 24	SADLER, GEORGE WILLIAM . . .	467, High Street, Cheltenham.
1233	{ A. '84, Dec. 8 } F. '94, May 28 }	*SADLER, GEORGE WILLIAM, JUN., } A.R.I.B.A. }	Duchy of Lancaster Office, Lancaster Place, W.
256	1871, Feb. 18	ST. QUINTIN, PERRY.	40, Threadneedle Street, E.C.
498	{ A. '76, Mar. 20 } F. '89, Nov. 25 }	ST. QUINTIN, RICHARD SAMUEL .	50, Threadneedle Street, E.C.
1518	1888, Dec. 10	SALTER, WILLIAM HERBERT . .	The Hall, Attleborough, Norfolk.
1788	1890, Apr. 14	SAMPLE, CHARLES HERBERT . .	Matfen, near Newcastle-on-Tyne.
1436	1888, Jan. 9	SAMPLE, THOMAS	Bothal Castle, near Morpeth, Northumberland.
1789	1890, Apr. 14	SAMPLE, WILLIAM COLLINGS . .	Bothal Castle, near Morpeth.
1682	{ A. '89, Dec. 9 } F. '91, Oct. 15 }	SAMFSON, WILLIAM	Beauchief Abbey, near Sheffield.
1384	1887, Mar. 21	SAMUEL, WILLIAM JOHN	Newport Pagnell, Bucks.

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2116	1891, May 28	SANCTUARY, CAMPBELL FORTESCUE STAPLETON	Mangerton, Melplash, Dorset.
397	1875, Apr. 26	SANDAY, GEORGE HENRY	Langdale Lodge, Adkin Road, Clapham Park, S.W.
741	1882, Feb. 13	SANDERS, THOMAS	148, Worcester Street, Bromsgrove, Worcester-shire.
458	1876, Nov. 27	SANDY, HENRY	Newport Road, Stafford.
167	1869, Feb. 8	SAUNDERS, CECIL GEORGE	5, Robert Street, Adelphi, W.C.
1696	{ A. '90, Jan. 6 } { F. '92, Nov. 14 }	*SAUNDERS, CHARLES HERBERT	40, Gloucester Road, S.W.
177	1869, Feb. 22	SAUNDERS, EDWARD	6, Bishopsgate Street Without, E.C.
2382	1891, Nov. 4	SAUNDERS, MARTIN L., A.R.I.B.A.	9, Finsbury Circus, E.C.
2032	1891, Mar. 14	SAUNDERS, RUTLAND	6, Bishopsgate Street Without, E.C.
2383	1891, Nov. 4	SAUNDERS, THEODORE RIDLEY	Belgrave Chambers, Ventnor, Isle of Wight.
121	1868, Aug. 17	SAVILL, ALFRED	39, New Broad Street, E.C., and Chigwell, Essex.
782	{ A. '82, Mar. 13 } { F. '89, Mar. 18 }	SAVILL, ALFRED, JUN.	39, New Broad Street, E.C.
1902	{ A. '90, Nov. 22 } { F. '93, Aug. 9 }	*SAVILL, EDWIN	39, New Broad Street, E.C.
867	{ A. '83, Jan. 15 } { F. '92, Feb. 1 }	SCAMMELL, THOMAS	14, John Street, Bristol.
333	1874, Feb. 2	SCARTH, WILLIAM T.	Raby Castle, Darlington.
2384	1891, Nov. 4	SCOTT, AUGUSTUS FREDERIC	24, Castle Meadow, Norwich.
1885	1887, Mar. 21	SCOTT, HENRY LACY	Bury St. Edmund's, Suffolk.
629	{ A. '81, Dec. 5 } { F. '82, Apr. 24 }	SCOVELL, JOHN	Oulton Park, Tarporley, Cheshire.
755	{ A. '82, Feb. 13 } { F. '89, Mar. 4 }	SCRIVEN, CHARLES HERBERT	Agency Office, Thong, Gravesend, Kent.
1861	1890, Nov. 22	SCRIVEN, RICHARD GEORGE	Castle Ashby, Northampton.
1862	1890, Nov. 22	SCROGGS, WILLIAM	Rectory House, Kidlington, Oxford.
2647	1894, Oct. 30	*SCRUBY, WILLIAM THOMAS	Post Office Terrace, Cambridge.
1706	1890, Jan. 27	SEBASTIAN-SMITH, CHARLES	Shipley, Derby, and Friar Lane, Leicester.
584	1879, Mar. 3	SELBY, CHARLES FREDERIC	19, Queen Anne's Gate, S.W.
1723	1890, Feb. 10	SELBY-BIGGE, CHARLES P. O.	10, Draycott Place, Chelsea, S.W.
1863	1890, Nov. 22	SENIOR, HARRY SAMUEL	Sturminster Newton, Dorset.
823	{ A. '82, Nov. 13 } { F. '86, May 3 }	SEYMOUR, RICHARD ARTHUR HAMILTON	46, Earl Street, Maidstone, Kent.
1049	{ A. '84, Jan. 14 } { F. '91, Mar. 16 }	SHACKLE, EDWARD NEILD	7, Hobart Place, S.W.
431	1876, Mar. 6	SHAW, JOHN (Member of Council)	College Place, Derby.
950	{ A. '83, May 21 } { F. '90, Mar. 10 }	SHAW, JOHN, JUN.	The College, All Saints', Derby.
1819	1890, May 29	SHELMERDINE, HENRY	{ Estate Offices, Lancashire and Yorkshire Railway, Hunt's Bank, Manchester.
748	1890, Feb. 24	SHEPPARD, ERNEST	81, Elizabeth Street, Eaton Square, S.W.
999	1883, Dec. 17	SHEPPARD, OSBORNE	Glynelydach, Neath.
316	1886, May 3	SHERRIN, JOHN LESTER	40, Old Broad Street, E.C.
706	{ A. '82, Jan. 16 } { F. '87, Dec. 5 }	SHERWIN, JOSEPH HENRY	16, Whitehall Place, S.W.
117	1891, May 23	SHILCOCK, JAMES	Hitchin, Herts, and 15, Basinghall Street, E.C.
385	1891, Nov. 4	SHONE, ISAAC, A.M.I.C.E.	47, Victoria Street, Westminster, S.W.
474	{ A. '77, Jan. 29 } { F. '80, Nov. 8 }	SHOPPEE, CHAS. H., F.R.I.B.A.	22, John Street, Bedford Row, W.C.

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74	1868, Jul. 18	SHOPPEE, CHAS. J., F.R.I.B.A. (Past-President)	{ 22, John Street, Bedford Row, and 41, Meoburgh Square, W.C.
604	{ A. '81, Jan. 24 } { F. '83, May 21 }	*SILCOCK, THOMAS BALL.	Octagon Chambers, Milsom Street, Bath.
720	1882, Jan. 30	SIMMONDS, FREDERICK	Parkside, Englefield Green, Surrey.
1654	1889, Dec. 9	SIMMONS, CHARLES	Henley-on-Thames.
611	{ A. '82, May 8 } { F. '89, Nov. 11 }	SIMMONS, CHARLES FRANKLIN	Basingstoke, Hants, and Henley-on-Thames
824	{ A. '82, Dec. 4 } { F. '91, Aug. 4 }	SIMMONS, WILLIAM ANKER	Henley-on-Thames, and Basingstoke.
903	1883, Feb. 26	SIMMS, WALTER	27, Albany Street, N.W.
1486	1888, May 14	SIMPSON, ROBERT THOMAS	Horsecroft, Bury St. Edmunds, Suffolk.
2386	1891, Nov. 4	SINGLE, ARTHUR	83, The Grove, Stratford, E.
2387	1891, Nov. 4	SKITT, ARTHUR	Glenbrook, Trent Road, Brixton Hill, S.W.
2388	1891, Nov. 4	SLADE, JAMES BENJAMIN	67 & 68, Cheapside, E.C.
1903	{ A. '90, Nov. 22 } { F. '92, Nov. 14 }	*SLATER, CHARLES FREDERICK	51, Cheapside, E.C.
282	1872, Apr. 22	SLATER, GEORGE	Canterbury, Kent.
593	{ A. '80, Dec. 12 } { F. '88 April, 30 }	SMALLPEICE, GEORGE BAKER	9 and 10, Tokenhouse Yard, E.C., and Guild
135	1863, Oct. 26	SMELLIE, THOMAS DAVIES	209, St. Vincent Street, Glasgow.
122	1863, Aug. 17	SMITH, CHARLES BOVILL	Wykeham House, Fareham, Hants.
1626	1889, May 13	SMITH, EDWARD	54, Amwell Street, E.C.
1484	1888, Apr. 30	SMITH, FRANK	37, Cannon Street, Birmingham.
2389	1891, Nov. 4	SMITH, FRANK ADAMS, A.M.I.C.E.	28, Finsbury Circus, E.C.
1538	{ A. '88, Dec. 10 } { F. '90, Jan. 27 }	*SMITH, FRANK WILLIAM	Beauchamp Hill, Milverton, Leamington.
2033	1891, Mar. 14	SMITH, FREDERIC ELLISON	Tanfield Chambers, Bradford.
2390	1891, Nov. 4	SMITH, FREDERICK JOHN	21, Portland Street, Southampton.
2034	1891, Mar. 14	SMITH, FREDERICK ROBERT	6, Great College Street, S.W.
1655	1889, Dec. 9	SMITH, GEORGE	Boughton-Monchelsea, Kent.
2119	1891, May 23	SMITH, GEORGE ALFRED	78, Parchment Street, Winchester.
1864	1890, Nov. 22	SMITH, HARRY RUSSELL	Exchange Buildings, Bradford.
454	{ A. '76, May 8 } { F. '81, Dec. 6 }	SMITH, HENRY	8, John Street, Adelphi, W.C.
400	{ A. '75, Apr. 26 } { F. '81, Jan. 24 }	SMITH, HENRY HERBERT	Chippenham, Wilts, and 7, Whitehall Place,
2391	1891, Nov. 4	SMITH, JOHN MOORE	14, Union Court, Old Broad Street, E.C.
1487	1888, May 14	SMITH, JOHN THOMPSON	Tattondale, Knutsford, Cheshire.
955	1883, May 25	SMITH, JOSEPH	Tanfield Chambers, Bradford.
2118	1891, May 23	SMITH, PERCY PYNE CALDECOTT	63, Holland Road, Kensington, W.
1820	1890, May 29	SMITH, SIDNEY	Southwater, Horsham, Sussex.
2392	1891, Nov. 4	SMITH, SIDNEY R. J., F.R.I.B.A.	14, York Buildings, Adelphi, W.C.
894	{ A. '83, Feb. 12 } { F. '89, Feb. 25 }	SMITH, WHEATER	15, Cheapside, Bradford.
1256	1885, Feb. 23	*SMITH, WILLIAM	{ Upper Farm, Abbot's Salford, Evesham, cestershire.
1372	1887, Feb. 21	SMYTH - RICHARDS, GEORGE COBLEY	{ 6, Castle Street, Barnstaple, Devon.
1434	1888, Nov. 12	SNELLING, HENRY	19 and 20, Walbrook, E.C., and Sidcup, Kent

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1821	1890, May 29	SPACKMAN, CHARLES CHANTREY	6, Terrace Walk, Bath.
96	1868, Jul. 27	SPACKMAN, HENRY	6, Terrace Walk, Bath.
1689	1890, Jan. 6	SPELMAN, CLEMENT CHARLES RIX	St. Giles' Street, Norwich.
42	1868, Jun. 15	SQUAREY, ELIAS PITTS (Past-President)	{ The Moot, Downton, Salisbury, and 22, Great George Street, S.W.
1822	1890, May 29	SQUAREY, NEWELL WILLIAM PITTS	{ The Moot, Downton, Salisbury, and 22, Great George Street, S.W.
1067	1884, Jan. 28	SQUIRE, RICHARD	2, Pont Street, Belgrave Square, S.W.
1277	1885, Dec. 7	STACEY, HARRIE	Station Road, Redhill, Surrey.
1268	1885, May 4	STAFFORD, ROBERT BARRY . .	83, High Street, Bedford.
2393	1891, Nov. 4	STALLARD, ALFRED EDWIN . .	West Street, Havant.
2394	1891, Nov. 4	STALLARD, WILLIAM	{ Sunny Lodge, Malvern Link, and Estate Office, Madresfield, Malvern Link.
2395	1891, Nov. 4	STANFORD, CHARLES MAURICE .	23, High Street, Colchester.
2086	1891, Mar. 14	STANGER, SAMUEL ARTHUR . .	21, Finsbury Pavement, E.C.
2120	1891, May 23	STANHAM, GEORGE GORDON . .	100b, Queen Victoria Street, E.C.
1487	1888, Jan. 9	STANLEY - DODGSON, STANLEY } DICKINSON }	Estate Office, Somerset House, Whitehaven, Cumberland.
2609	{ A. '93, Oct. 4 } { F. '94, Oct. 10 }	*STAPLEDON, ERNEST ALLEN .	Bridge Chambers, Bideford, North Devon.
1707	1890, Jan. 27	START, JOSEPH WILLIAM . . .	Cups Chambers, High Street, Colchester, Essex.
2396	1891, Nov. 4	STEDMAN, CHARLES MASON . .	{ The Turret House, Killieser Avenue, Streatham Hill, S.W.
469	1877, Jan. 15	STENNING, ALEX. R., F.R.I.B.A.	121, Cannon Street, E.C.
529	{ A. '79, Jan. 6 } { F. '82, Nov. 18 }	STEPHENSON, CHARLES WILLIAM	38, Parliament Street, S.W.
1823	1890, May 29	STEVENS, CHARLES VIVIAN . .	18, Cockspur Street, S.W.
2397	1891, Nov. 4	STEVENS, JOHN WM., A.R.I.B.A.	21, Bridge Street, E.C.
1198	1884, May 26	STEVENS, WILLIAM CHARLES . .	22, Savile Row, W.
2097	1891, Mar. 14	STEVENSON, EDMD. H., M.I.C.E.	38, Parliament Street, S.W.
97	1868, Jul. 27	STEWART, HERBERT THOMAS . . (Member of Council)	45, Parliament Street, S.W.
2088	1891, Mar. 14	STIRTON, THOMAS	{ Estate Office, West Stratton, Micheldever Station, Hants.
938	1883, April 30	STOCK, HENRY, F.R.I.B.A. . .	9, Denman Street, London Bridge, S.E.
2121	1891, May 23	STOCKS, FREDERICK WILLIAM .	Estate Office, Mere, Knutsford.
2398	1891, Nov. 4	STOKES, FREDERICK VINCENT .	31, Great James Street, Bedford Row, W.C.
654	1881, Dec. 19	STONER, ALFRED	8, Blomfield Street, E.C.
1599	1889, Mar. 4	STOOKE, JAMES	Courtenay Street, Newton Abbot, Devon.
2399	1891, Nov. 4	STOPHER, THOMAS	Winchester, Hants.
2089	1891, Mar. 14	STREET, WM. CHAS., F.R.I.B.A.	7, Victoria Street, S.W.
1108	1884, Feb. 25	STRUDWICK, HAYWARD JAMES .	Falcon Court, 32, Fleet Street, E.C.
655	1881, Dec. 19	STRUDWICK, WILLIAM HENRY .	14, Parliament Street, S.W.
415	{ A. '75, Dec. 18 } { F. '91, June 29 }	STRUTT, HON. EDWARD GERALD	{ 21, Finsbury Circus, E.C., and Whitelands, Hatfield Peverel, Chelmsford, Essex.
1488	1888, May 14	STUDDY, THOMAS EDWARD . .	Estate Office, Basing Park, Alton, Hants.
87	1868, Jul. 20	STURGE, ROBERT FOWLER . .	34, Corn Street, Bristol.

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18	1868, Jun. 15	STURGE, WILLIAM	34, Corn Street, Bristol.
		(Past-President)	
2400	1891, Nov. 4	SURRIDGE, JOSEPH SMITH . .	Coggeshall, Es:ex.
2401	1891, Nov. 4	SUTHERS, JAMES	Victoria Villas, Todmorden.
2402	1891, Nov. 4	SWAIN, ERNEST	82, High Street, Notting Hill, W.
2403	1891, Nov. 4	SWAIN, FRANK	82, High Street, Notting Hill, W.
1427	{ A. '87, Dec. 11 F. '92, Feb. 1 }	SWETENHAM, HENRY	Hawarden, Chester.
1257	1885, Feb. 23	SWORDER, HUGH	High Street, Epping, Essex
1068	1884, Jan. 28	SYMONS, PHILIP	Fore Street, Totnes, Devon.
1956	1891, Jan. 17	SYNGE, EDWARD MILLINGTON .	Eastlands, Weybridge.
1824	1890, May 29	TABBERER, BENJ., F.R.I.B.A. .	13, Basinghall Street, E.C.
1317	1886, May 3	TANNER, HENRY, F.R.I.B.A. .	H.M. Office of Works, Whitehall Place, S.W.
1092	1884, Feb. 11	TANNER, JAMES MELHUISE . .	Wembworthy, North Devon.
1115	{ A. '84, Feb. 25 F. '88, Dec. 10 }	TANNER, WILLIAM	{ The Leys, Bryngwn Road, Newport, Monmouthshire.
771	{ A. '82, Feb. 27 F. '89, Nov. 11 }	TAPP, ARTHUR	{ 15, Great George Street, and Southend-on-Sea Essex.
2404	1891, Nov. 4	TASKER, HENRY HUGH	53, Penton Street, Pentonville, N.
233	{ A. '70, Feb. 7 F. '78, Jan. 28 }	TATHAM, GEORGE HENRY . .	{ 63 & 64, New Broad Street, E.C., and Romford Essex.
2405	1891, Nov. 4	TAYLOR, ARTHUR WILLIAM . .	119, High Street, Putney, S.W.
1364	1887, Jan. 24	TAYLOR, EDWARD FERGUSON .	{ New Barnet, Herts, and 70 & 72, Chancery Lane, W.C.
1471	{ A. '88, Mar. 5 F. '91, July 6 }	TAYLOR, JOHN HERBERT . . .	15, Great George Street, S.W.
678	{ A. '81, Dec. 19 F. '87, Feb. 7 }	TAYLOR, JOHN W., F.R.I.B.A. .	31, Westgate Road, Newcastle-on-Tyne.
1026	{ A. '88, Dec. 17 F. '89, Nov. 11 }	TAYLOR, MATTHEW	Northchapel, Petworth, Sussex.
1825	1890, May 29	TAYLOR, RICHARD FREDERICK .	3, King Street, Cheapside, E.C.
2406	1891, Nov. 4	TAYLOR, SAMUEL	Nuttall, Nottingham.
2407	1891, Nov. 4	TAYLOR, THOMAS WALTERS . .	25, Brazennose Street, Manchester.
2639	{ A. '94, Feb. 23 F. '94, Oct. 10 }	*TEE, SAMUEL CLIFFORD . . .	50, Moorgate Street, E.C.
2469	{ A. '91, Nov. 4 F. '94, Oct. 10 }	*TEMPLE, FREDERICK WILSON .	27, Sandgate Road, Folkestone, Kent.
1069	1884, Jan. 28	TEWSON, EDWARD	80, Cheapside, E.C.
859	{ A. '82, Dec. 18 F. '85, Jan. 12 }	TEWSON, EDWARD ARTHUR . .	80, Cheapside, E.C.
806	{ A. '82, Apr. 24 F. '90, Nov. 10 }	THEOBALD, HENRY	{ 48, Finsbury Pavement, E.C., and 92, Forest Lane, Forest Gate, E.
924	1883, April 16	THEOBALD, HENRY WELLS DEW- HURST	{ 110, Great Russell Street, W.C.
2408	1891, Nov. 4	THOMAS, GEORGE	Queen's Chambers, Cardiff.
1765	1890, Mar. 10	THOMAS, GLEGGE	{ Cheshire Lines Committee, Central Station Liverpool.
2409	1891, Nov. 4	THOMAS, JOHN HENRY	78, Gloucester Road, South Kensington, S.W.
829	1874, Jan. 19	THOMAS, JOSIAH	Athenæum Chambers, Nicholas Street, Bristol.

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2410	1891, Nov. 4	THOMAS, WILLIAM	Castlemartin Court, near Pembroke.
841	1882, Dec. 18	THOMPSON, ARTHUR EDMUND .	Leadenhall Buildings, E.C.
2411	1891, Nov. 4	THOMPSON, FRANCIS WILLIAM .	5, Wood Street, Bolton.
2412	1891, Nov. 4	THOMPSON, GEO. W., A.M.I.C.E.	Vine Street, Tooley Street, Southwark. S.E.
1829	1886, Dec. 6	THOMSON, WILLIAM CUNNINGHAM	Estate Office, Luton Hoo, Luton, Beds.
1473	1888, Mar. 19	THORNE, ARNOLD, F.R.I.B.A. .	Cross Street, Barnstaple, Devon.
757 {	A. '82, Feb. 13 } F. '89, Nov. 25 }	THORPE, CHRISTOPHER	Spring House, Calow, Chesterfield.
2122	1891, May 23	THORPE, JOHN	Nailstone, Hinckley, Leicestershire.
1000	1888, Dec. 17	THORPE, WILLIAM	Nailstone, Hinckley, Leicestershire.
657	1881, Dec. 19	THURGOOD, HERBERT JOHN . .	27, Chancery Lane, W.C.
623	1889, Apr. 29	THURGOOD, WILLIAM HENRY . .	22, Great George Street, S.W.
591 {	A. '80, Dec. 13 } F. '87, Nov. 14 }	THURNALL, JOHN EDWARD . .	Royston, Herts.
494	1878, Jan. 14	THURSFIELD, THOMAS HOWELLS	Barrow, Brosely, Shropshire.
45	1868, Jun. 15	THYNNE, EDWARD LEWIS . . .	9, Victoria Street, S.W.
155	1869, Jan. 11	THYNNE, FREDERICK GEORGE . .	9, Victoria Street, S.W.
1070	1884, Jan. 28	THYNNE, GUY HARRY	9, Victoria Street, S.W.
1865	1890, Nov. 22	TIDMAN, EDWARD	Connaught Mansions, 34, Victoria Street, S.W.
1297 {	A. '86, Jan. 11 } F. '89, Mar. 18 }	*TIFFEY, JOHN HENRY	Conservancy Buildings, Hull.
1373	1887, Feb. 21	TINDALL, CHARLES WILLIAM . .	Brocklesby, Lincolnshire.
2413	1891, Nov. 4	TODD, RICHARD	Englefield, near Reading.
1241	1885, Jan. 12	TODD, WILLIAM H., M.I.C.E. . .	County Buildings, Hull.
1438	1888, Jan. 9	TOMLINSON, THOMAS.	Estate Office, Alnwick Castle, Northumberland.
1600	1889, Mar. 4	TOMPSETT, WILLIAM ROBERT	{ Stone Castle Farm, Paddock Wood, Kent, and 182, High Street, Tonbridge.
1827	1890, May 29	TOMSON, JAMES JOHN	The Châlet, King's Norton, near Birmingham.
766	1882, Feb. 27	TOOTELL, CHARLES	13, King Street, Maidstone, Kent.
767	1882, Feb. 27	TOOTELL, JOSEPH	13, King Street, Maidstone, Kent.
473	1877, Jan. 29	TOOTELL, RICHARD WILLIAM . .	11, Queen Victoria Street, E.C.
447	1876 Apr. 24	TOWER, BROWNLOW RICHARD } CHRISTOPHER }	Bridgewater Estate Office, Ellesmere, Salop.
2414	1891, Nov. 4	TRAFFORD, FREDERICK CHARLES	100, Jermyn Street, St. James's, S.W.
972 {	A. '83, May 25 } F. '86, Dec. 6 }	*TREADWELL, HENRY JOHN . .	2, Waterloo Place, Pall Mall, S.W.
415	1891, Nov. 4	TREPPIN, ERNEST C.	Vasterne, Wootton Bassett, Wilts.
1001	1888, Dec. 17	TRETHEWY, HENRY	Silsoe, Amptill, Beds.
1292	1886, Jan. 11	TRIST, JOHN WILLIAM	62, Old Broad Street, E.C.
355	1874, May 11	TROLLOPE, CHARLES BROWN . .	13, Parliament Street, S.W.
592 {	A. '80, Dec. 13 } F. '91, Jan. 19 }	TROLLOPE, HENRY CHARLES . .	7, Hobart Place, S.W.
2123	1891, May 23	TROUNSON, JOHN WILLIAM, } F.R.I.B.A. }	27, Clarence Street, Penzance.
1131 {	A. '84, Mar. 10 } F. '91, Aug. 4 }	TRUMPER, JOHN ALFRED	23, Lincoln's Inn Fields, W.C.
92	1868, Jun. 15	TRUMPER, RICHARD	23, Lincoln's Inn Fields, W.C.
2040	1891, Mar. 14	TUBBS, WALTER BURNELL . . .	St. Martin's House, 1, Gresham Street, E.C.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	
521	1878, Dec. 9	TUNLEY, GEORGE	28, Finsbury Circus, E.C.
2416	1891, Nov. 4	TURNER, ALEXANDER HENRY . .	199, Piccadilly, W.
1495	1888, Nov. 12	TURNER, CHARLES	Oakhurst, East Grinstead, Sussex.
904	1883, Feb. 26	TURNER, FREDERICK JOHN . .	Mansfield-Woodhouse, Mansfield, Notts.
1866	1890, Nov. 22	TURNER, JOSEPH HARLING . .	Portland Estate Offices, Kilmarnock.
2124	1891, May 23	TURNER, THOMAS NEVE . . .	37, Upper Berkeley Street, Portman Square, W.
1520	1888, Dec. 10	TURNER, THOMAS WARNER . .	Welbeck Abbey, Worksop, Notts.
1246	1885, Jan. 26	TURNOR, EXSUPERIUS WESTON .	The Green, Stafford.
1867	1890, Nov. 22	TURTON, EDWARD JAMES . . .	Horkstow, Barton-on-Humber, Lincolnshire.
1698	{ A. '90, Jan. 6 F. '93, Aug. 9 }	*TYLER, JAMES WILLIAM . . .	33, Mount Street, W.
2417	1891, Nov. 4	TYSER, RICHARD	360, High Road, Chiswick, W.
2041	1891, Mar. 14	UPCHER, EDWARD BERNERS . .	Kirby Cane, Norfolk.
1571	1889, Jan. 28	USHER, ALFRED	Belize, British Honduras.
905	1883, Feb. 26	VAIZEY, JOHN GEORGE	{ Bocking, Braintree, Essex, and 44, Bedford Road, W.C.
2125	1891, May 23	VALLANCE, ROBT. F., F.R.I.B.A.	Mansfield, Notts.
1002	1883, Dec. 17	VEEVERS, RICHARD	Woningworth, Fulwood Park, Preston.
319	{ A. '78, Dec. 8 F. '78, Nov. 11 }	VENABLES, FREDERICK	60, Chancery Lane, W.C.
429	1876, Feb. 21	*VERNON, ARTHUR (Member of Council)	{ Borshams, High Wycombe, Bucks; and 22, Cockspur Street, S.W.
2289	1891, Nov. 4	†VERNON-INKPEN, GEORGE CHAS.	6, King's Road, Southsea, Hants.
418	1876, Jan. 10	VIGERS, ASTLEY	4, Frederick's Place, E.C.
268	1871, Dec. 4	VIGERS, EDW., JUN., F.R.I.B.A.	31, Parliament Street, S.W.
498	{ A. '78, Jan. 28 F. '83, Nov. 12 }	VIGERS, LESLIE ROBERT	4, Frederick's Place, E.C.
594	{ A. '80, Dec. 13 F. '85, Nov. 9 }	VIGERS, MARTIN	52, Queen Victoria Street, E.C.
46	1863, Jun. 15	VIGERS, ROBERT (Vice-President)	4, Frederick's Place, E.C.
1496	1888, Nov. 12	VILLAR, JAMES	1A, Cambray, Cheltenham.
1601	1889, Mar. 4	WACHER, THOMAS	Upper Bridge Street, Canterbury, Kent.
1868	1890, Nov. 22	WADDINGTON, JOHN ALLEN . .	Estate Office, Rendcomb Park, Cirencester.
2126	1891, May 23	WADE, GEORGE TEMPEST . . .	Halford Street, Leicester.
842	1882, Dec. 18	WADE, JOHN	10, Pitt Street, Barnsley.
2418	1891, Nov. 4	WADLING, HY. JOHN, F.R.I.B.A.	Lamb Building, Temple, E.C.
2419	1891, Nov. 4	WADMORE, BEAUCHAMP, A.R.I.B.A.	35, Great St. Helen's, E.C.
1618	1889, Apr. 1	WAGSTAFFE, THOMAS ROGERS .	{ 11, Devonshire Road, Balham, S.W., and 109, Leadenhall Street, E.C.
843	1882, Dec. 18	WAINWRIGHT, CHARLES RAW- LINSON	{ Shepton Mallet, Somerset.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	
1631	1889 Nov. 25	WAINWRIGHT, THOMAS TAYLOR.	21, Leigh Street, Liverpool.
		(Member of Council)	
1992	1887, May 9	WALCOTT, LYONS RODEN SYMPSON	1, Gray's Inn Place, W.C.
1869	1890, Nov. 22	WALKER, FRANCIS ELLIOTT . .	Blake Street, York.
2421	1891, Nov. 4	WALKER, GEORGE BOOTH . .	Wainfleet, Lincolnshire.
743	1882, Feb. 18	WALKER, HERBERT, A.M.I.C.E., F.R.I.B.A.	Newcastle Chambers, Angel Row, Nottingham.
2127	1891, May 23	WALKER, JOSEPH.	
2471	{ A. '91, Nov. 4 } { F. '92, Oct. 12 }	*WALKER, JOSEPH ARTHUR . .	Ashton Court Estate, Long Ashton, Clifton.
1773	1890, Mar. 24	WALKER, JOSHUA	Market Place, Retford, Notts.
2422	1891, Nov. 4	WALKER, ROBERT, F.R.I.B.A. .	10, St. Martin's Place, Trafalgar Square, W.C.
659	1881, Dec. 19	WALKER, SAMUEL	22, Moorgate Street, E.C.
1072	1884, Jan. 28	WALL, GEORGE YOUNG	Exchequer Buildings, Durham.
2420	1891, Nov. 4	WALLACE, GEORGE	{ St. Giles' District Board of Works, 197, High Holborn, W.C.
1178	1884, May 19	WALLACE, HENRY	Trench Hall, Gateshead-on-Tyne, Co. Durham.
1455	1888, Feb. 6	WALLINGTON, JOHN ARTHUR BEACH.	Basingstoke, Hants.
785	1882, Mar. 27	WALMISLEY, ARTHUR THOMAS, M.I.C.E.	
2042	1891, Mar. 14	WALMISLEY, J. W., F.R.I.B.A.	7, King's Terrace, Southsea, Hants.
1828	1890, May 29	WANKLYN, PHILLIP ENDELL . .	Dixton, near Monmouth.
1407	1887, Dec. 19	WARD, DANIEL	{ 8, Courtenay Street, Plymouth, and Hewton, Beeralston, Devon.
1724	1890, Feb. 10	WARD, FELIX JOHN	The Gardens, Lydbury North, Shropshire.
1469	1888, Mar. 5	WARD, FRANK	Burnville, Bridestowe, North Devon.
1029	{ A. '88, Dec. 17 } { F. '89, Nov. 11 }	WARD, GEORGE	"Lyndhurst," 2, Stowe Road, Goldhawk Road, W.
660	1881, Dec. 19	WARE, CHAS. EDWIN, M.I.C.E.	Gandy Street Chambers, Exeter.
1141	1884, Apr. 21	WARING, CHARLES EDWARD . .	1, Charles Street, Crockherbtown, Cardiff.
1871	1890, Nov. 22	WARING, HERBERT FULLER . .	46, Earl Street, Maidstone, Kent.
2423	1891, Nov. 4	WARNER, ALFRED E., A.R.I.B.A.	6, Waterloo Place, S.W.
1632	1889, Nov. 25	WARNER, HENRY.	Faringdon, Alton, Hants.
189	{ A. '69, Mar. 8 } { F. '75, Apr. 12 }	WARNER, WILLIAM HENRY . .	130, Mount Street, Grosvenor Square, W.
2124	1891, Nov. 4	WATERMAN, ALBERT JAMES . .	20, Week Street, Maidstone.
874	1883, Jan. 29	WATERMAN, JAMES	Ashford, Kent.
1109	1884, Feb. 25	WATERMAN, RICHARD	20, Week Street, Maidstone, Kent.
2044	1891, Mar. 14	WATERS, EDWARD	The Canal, Salisbury, Wilts.
758	{ A. '82, Feb. 13 } { F. '87, Mar. 7 }	WATERS, WILLIAM RICHARD . .	5, Waterloo Place, S.W.
1101	{ A. '84, Feb. 11 } { F. '89, Mar. 4 }	WATKINS, ROBERT ARUNDEL . .	Castle Combe, Chippenham, Wilts.
47	1888, Jun. 15	WATNEY, DANIEL.	33, Poultry, E.C.
		(President)	
1957	1891, Jan. 17	WATNEY, DENDY.	4A, Frederick's Place, E.C.
951	{ A. '83, May 21 } { F. '87, Feb. 21 }	WATNEY, WALTER DANIEL . .	33, Poultry, E.C.
657	1889, Dec. 9	WATSON, ALFRED	Braeside, Alum Chine, Bournemouth West, Hants.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	
574	1880, Mar. 1	WATSON, HERBERT EDWARD	{ New Grove, Petworth, Sussex, and 6, Leno York.
2425	1891, Nov. 4	WATSON, JOHN	62, Whitefriar-gate, Hull.
1290 {	A. '85, Dec. 7 F. '94, May 2 }	*WATSON, JOHN, JUN.	Wentbridge Lodge, Pontefract, Yorkshire.
1456	1888, Feb. 6	WATT, ALEXANDER	Ravenglass, Carnforth, Lancashire.
467 {	A. '76, Dec. 18 F. '79, Nov. 10 }	WATTS, CHARLES	13, Southampton Street, Strand, W.C.
2426	1891, Nov. 4	WATTS, SAMUEL LINGARD	40, South King Street, Cross Street, Manchest
1683	1889, Nov. 25	WATTS, WILLIAM JOHN	40, South King Street, Cross Street, Manchest
1658	1889, Dec. 9	WAY, HENRY JAMES.	{ 109, Lower St. James' Street, Newport, Isle Wight.
284	1872, May 6	WEALL, JOHN	38, High Street, Watford.
1045	1884, Jan. 14	WEATHERALL, HENRY	22, Chancery Lane, W.C.
700	1882, Jan. 16	WEAVER, WILLIAM, M.I.C.E.	Town Hall, Kensington, W.
215	1869, Dec. 6	WEBB, GEORGE	Tunstall, Sittingbourne, Kent.
1725	1890, Feb. 10	WEBB, WILLIAM	4, High Street, Croydon.
1478	1888, Apr. 16	WEBSTER, ALEXANDER	{ 100, Highgate, and 9, Cliff Terrace, Kendal Westmoreland.
1659	1889, Dec. 9	WELCH, FREDERICK WILLIAM	{ 168, North Street, Brighton, and 26, Havelock Road, Hastings.
2128	1891, May 23	WELLS, EDWIN	Barnard Castle, Co. Durham.
1169 {	A. '84, May 5 F. '90, Dec. 8 }	WELLS, WILLIAM HOWLEY	Estate Office, Evershot, Dorset.
661	1881, Dec. 19	WELLSTED, WM. H., A.M.I.C.E.	Manor Street, Hull.
744	1882, Feb. 13	WESTBURY, GEORGE HENRY	The Knoll, Andover, Hants.
2045	1891, Mar. 14	WEATHERALL, HARRY LANCASTER	Brachlyn, Winchfield, Hants.
1454	1888, Feb. 6	WHALLEY, HENRY SHAW	3, Hunter Street, Town Hall Square, Chester.
779	1882, Mar. 13	WHARTON, THOMAS GEORGE	1, Basinghall Street, E.C.
1726	1890, Feb. 10	WHATLEY, FREDERICK ERNEST	Cirencester.
2427	1891, Nov. 4	WHITE, ALFRED E., A.M.I.C.E.	Town Hall, Hull.
1958	1891, Jan. 17	WHITE, ARTHUR JEFFREY	Wrangaton Manor, Ivybridge, South Devon.
1959	1891, Jan. 17	WHITE, CHARLES ALEXANDER	18, High Street, Dorking, Surrey.
2428	1891, Nov. 4	WHITE, JAMES ALEXANDER	18, High Street, Dorking.
745	1882, Feb. 13	WHITE, JOHN.	Warrington, Lancashire.
1774	1890, Mar. 24	WHITE, JOHN.	49, London Road, Sevenoaks, Kent.
2429	1891, Nov. 4	WHITE, WILLIAM HENRY	31, Eldon Street, South Place, Finsbury, E.C.
701	1882, Jan. 16	WHITELEY, CHARLES PERRY	82, Queen Street, E.C.
2430	1891, Nov. 4	WHITTINDALE, JAMES	The Poplars, Kenilworth, Warwickshire.
2431	1891, Nov. 4	WHITTON, JOHN WILLIAM	2, St. James's Street, Derby.
2432	1891, Nov. 4	WHYTE, WILLIAM McNICOL.	103, West Regent Street, Glasgow.
1790	1890, Apr. 14	WIGLEY, GEORGE DAVYS EDWARD	Winslow, Bucks.
284 {	A. '70, Feb. 7 F. '76, Nov. 18 }	WIGRAM, JOHN	South Collingham, Newark, Notts.
2492	1892, Feb. 26	WILBRAHAM, EDWARD SIDNEY	Estate Office, St. Giles, Salisbury.
2046	1891, Mar. 14	WILDE, WILLIAM	Brockett House, Sharrow, Sheffield.
2433	1891, Nov. 4	WILKIN, HORACE MARTIN	King's Lynn, Norfolk.

Dip. No.	Date of Election and of Transfer.		FELLOWS.	
2434	1891, Nov.	4	WILKINS, WILLIAM	Greenfield Villas, Llanelly, Carmarthenshire.
721	1882, Jan.	30	WILKINSON, GEORGE AYSCOUGH	7, Poultry, E.C.
1960	1891, Jan.	17	WILKINSON, GEORGE HERBERT.	7, Poultry, E.C.
1226	1884, Dec.	8	WILKINSON, THOMAS	{ 168, North Street, Brighton, and 26, Havelock Road, Hastings.
1242	1885, Jan.	12	WILKS, RICHARD	Little Mongeham, near Deal, Kent.
2435	1891, Nov.	4	WILLIAMS, GERALD GARNOUS .	St. John's Mount, Brecon, South Wales.
1094	1884, Feb.	11	WILLIAMS, JOHN	Gwernhefin, Bala, North Wales.
378 { A. '75, Jan. 18 } F. '90, Feb. 24 }			WILLIAMS, LEONARD JAMES .	118, Queen Victoria Street, E.C.
240	1870, May	9	WILLIAMS, STPH. W., F.R.I.B.A.	Rhayader, Radnorshire.
568 { A. '80, Jan. 19 } F. '88, Apr. 16 }			WILLIAMS, WILLIAM HERBERT.	Great Western Railway, Paddington, W.
2129	1891, May	23	WILLIAMS, WILLIAM LLOYD .	24, High Street, Carnarvon.
1593	1889, Feb.	25	WILLMOT, GEORGE DYOTT . .	6, Waterloo Street, Birmingham.
807 { A. '82, Apr. 24 } F. '87, May 9 }			WILLMOT, JOHN	6, Waterloo Street, Birmingham.
1004	1883, Dec.	17	WILSON, SIR JACOB	{ 15, Great George Street, S.W. and Chillingham, Alnwick.
1961	1891, Jan.	17	WILSON, STEPHEN BARTON . .	10, Basinghall Street, E.C.
662	1881, Dec.	19	WILSON, THOMAS SILK . . .	Albert Square, Manchester.
1962	1891, Jan.	17	WILSON, WILLIAM HENRY . .	26, Fountain Street, Manchester.
1150 { A. '84, Apr. 21 } F. '88, Mar. 19 }			WINDER, GEORGE ALEXANDER.	{ Escot Estate Office, Fairmile, Ottery St. Mary, Devon.
2436	1891, Nov.	4	WINN, THOMAS	90, Albion Street, Leeds.
1963	1891, Jan.	17	WINTERTON, HARRY JOHN CAM- PION	{ St. Mary's Chambers, Lichfield.
1964	1891, Jan.	17	WINTERTON, WILLIAM MOXON .	Walton Warren, Burton-on-Trent.
2437	1891, Nov.	4	WISE, CHARLES DACRES . .	Toddington, Winchcomb, Glos.
2047	1891, Mar.	14	WITHALL, LATHAM A., F.R.I.B.A.	Jewry House, Old Jewry, E.C.
48	1868, Jun.	15	WITHALL, RICHARD AUGUSTUS .	Branksome, Putney Hill, S.W.
2130	1891, May	23	WOLFENDEN, THOMAS . . .	54, Hall Street, Southport, Lancashire.
2438	1891, Nov.	4	WOLLEY, THOMAS JOHN . . .	Clungunford Estate Office, Aston-on-Clun, Salop.
1909 { A. '90, Nov. 22 } F. '91, May 25 }			*WOOD, CHARLES BRUCE . . .	37, Irene Road, Parson's Green, S.W.
539 { A. '79, Mar. 17 } F. '91, July 6 }			WOOD, HENRY	97, Gresham Street, E.C.
1474	1888, Mar.	19	WOOD, JOHN DANIEL	6, Mount Street, W.
1258	1885, Feb.	23	WOOD, WILLIAM	Ifield Court, Crawley, Sussex.
2048	1891, Mar.	14	WOOD, WILLIAM	Cooling Castle, near Rochester, Kent.
1873	1890, Nov.	22	WOODBIDGE, STEPHEN, JUN. .	210, High Street, Brentford.
1874	1890, Nov.	22	WOODFORDE, LIONEL BURNET .	38, St. Peter's Hill, Stamford, Lincolnshire.
845	1882, Dec.	18	WOODHAMS, JAMES	Havelock Road, Hastings.
1875	1890, Nov.	22	WOODHEAD, WILLIAM BOOTH .	18, Exchange Buildings, Bradford.
2181	1891, May	23	WOODMAN, THOMAS FOSTER .	32, St. Peter Street, St. Albans.
663	1881, Dec.	19	WOODS, HENRY	19 & 20, Walbrook, E.C.
2132	1891, May	23	WOODS, THOMAS	4 and 5, Church Parade, Hounslow, Middlesex.
2439	1891, Nov.	4	WOODTHORPE, E., F.R.I.B.A. .	1, Circus Place, E.C.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	
711	{ A. '82, Jan. 16 } { F. '90, Apr. 14 }	WOODWARD, WM., A.R.I.B.A.	7, Duke Street, Adelphi, W.C.
2440	1891, Nov. 4	WOOLER, WALTER HERMAN	Waterloo Street, Weston-super-Mare.
2049	1891, Mar. 14	WOOLLEY, JOHN TURTON	Salisbury, Wilts.
618	1881, Feb. 21	WOOLLEY, REGINALD.	{ Silver Street, Lincoln, and South Collingham Newark, Notts.
427	{ A. '76, Feb. 7 } { F. '80, Nov. 8 }	WOOLLEY, THOMAS CECIL SMITH	South Collingham, Newark, Notts.
267	{ A. '71, Nov. 18 } { F. '77, Jan. 29 }	WOOLLEY, WILLIAM EDWARD	Loughborough, Leicestershire.
1876	1890, Nov. 22	WORDSWORTH, ROBERT WALTER	Whitemoor, Ollerton, Notts.
680	{ A. '81, Dec. 19 } { F. '87, Jan. 10 }	WREATHALL, ROBERT T.	{ The Vestry Hall, St. Martin's Place, Trafalgar Square, W.C., and Manor House, Green Harrow.
2441	1891, Nov. 4	WRENNALL, WILLIAM	9, Harrington Street, Liverpool.
2442	1891, Nov. 4	WRIGHT, CHARLES WILLIAM	Wollaton, Notts.
2443	1891, Nov. 4	WRIGHT, GEORGE THOMAS GREEN	3, Great Winchester Street, E.C.
1200	1884, May 26	WRIGHT, JAMES	St. James's Street, Derby.
2444	1891, Nov. 4	WRIGHT, JAMES	Rawcliffe, near Selby, Yorkshire.
1521	1888, Dec. 10	WRIGHT, THOMAS	Post Office Terrace, Cambridge.
283	1872, Apr. 22	WRIGHT, WILLIAM	Wollaton, Nottinghamshire.
		(Member of Council)	
292	1872, Dec. 9	WRIGHT, WILLIAM EDWARD	King's Lynn, Norfolk.
1749	1891, Feb. 24	WRIGHTSON, ARTHUR FREDERICK	26, Budge Row, E.C.
722	1882, Jan. 30	WYATT, OLIVER NEWMAN	East Street, Chichester.
1120	1884, Mar. 10	WYLEY, HENRY JAMES	Bridgnorth, Shropshire.
1227	1884, Dec. 8	WYLEY, WILLIAM JOHN	2, School Chambers, Shrewsbury.
2445	1891, Nov. 4	YORK, HENRY	Urban District Council Offices, Teddington.
599	{ A. '81, Jan. 10 } { F. '91, Jan. 5 }	YOUNG, ANDREW	London County Council, 17, Spring Gardens, S.W.
2493	1892, Feb. 26	YOUNG, CHARLES.	Alton, Hants.
1830	1890, May 29	YOUNG, DOUGLAS.	51, Coleman Street, E.C.
2446	1891, Nov. 4	YOUNG, EDWARD H., A.M.I.C.E.	Central Chambers, South Castle Street, Liverpool.
2473	{ A. '91, Nov. 4 } { F. '92, Nov. 14 }	*YOUNG, HARRY AUSTIN LINDSAY	Bridgegate, Retford, Nottingham.
524	{ A. '78, Dec. 9 } { F. '91, Feb. 2 }	YOUNG, MORGAN HENRY	17, Southampton Street, Bloomsbury Square, W.
2447	1891, Nov. 4	YOUNG, OSWALD WILLIAM	Mersey Docks and Harbour Board, Liverpool.
2448	1891, Nov. 4	YOUNG, THOMAS	67 and 69, Chancery Lane, W.C.

Total number of Fellows, 1,612.

Professional Associates.

The names of those Professional Associates who have qualified for the Class by Examination are distinguished thus *

The names of those Professional Associates who have further qualified by Examination for, but have not yet been transferred to, the Class of Fellows, are distinguished thus †

Diploma
Number.

Date of Election.

2648	1894, Oct. 30	*ADAMS, GERALD JAS. FREDERICK	Richmond Chambers, Bournemouth, Hants.
2564	1893, Oct. 4	*ALLEN, JOHN PARNELL . . .	{ 23, Victoria Buildings, Grainger Street West Newcastle-on-Tyne.
2565	1893, Oct. 4	*ANDREWS, WALTER ELY . . .	{ Crosby House, Thurlow Park Road, West Nor- wood, S.E.
2649	1894, Oct. 30	*†ARIS, JOHN WHITTON . . .	45, Lincoln's Inn Fields, W.C.
1877	1890, Nov. 22	*ARMYTAGE, FRANCIS REGINALD.	Windsor House, Shrewsbury.
1280	1885, Dec. 7	*†ARNOTT, JOHN	Church Street, Woodbridge, Suffolk.
1750	1891, Feb. 24	*†ASSITER, HARRY G.	{ The Old Vestry Hall, 5, St. Martin's Place, Tra- falgar Square, W.C., and 207, Brixton Road, S.W.
2650	1894, Oct. 30	*ASTLEY, REGINALD BASIL . . .	Melton Constable, Norfolk.
1878	1890, Nov. 22	*†AYLEN, CECIL HUGH	13, Kensington Park Road, W.
2566	1893, Oct. 4	*†BAILEY, LOUIS HEWITT . . .	Blagrove Street, Reading.
1281	1885, Dec. 7	*BAKER, CECIL CAUTLEY . . .	The Colonial College, Hollesley Bay, Suffolk.
558	1879, Dec. 8	BALDING, ALBERT	57, Coleman Street, and Barkway, Herts.
1522	1888, Dec. 10	*BALL, JAMES BENJAMIN . . .	{ Engineer's Office, Great Northern Railway, King's Cross, N.
2567	1893, Oct. 4	*†BANNISTER, TOM HARRISON CAFFYN	{ Limehurst, Hayward's Heath, Sussex.
1880	1890, Nov. 22	*BARCLAY, THOMAS	Arncliffe, Moseley, Birmingham.
2504	1892, Nov. 28	*BARKER, GEOFFRY LIONEL . . .	Wigsthorpe, Oundle, Northamptonshire.
1247	1885, Jan. 26	*BARRATT, HARRY	{ Hill View, Corser Street, Stourbridge, Worcester- shire.
2568	1893, Oct. 4	*BATE, WILLIAM HENRY . . .	Thorne House, Grove Park, Camberwell, S.E.
1409	1887, Dec. 19	*BATEMAN, ARTHUR CHARLES . .	Oriel House, Witney, Oxon.
622	1881, May 16	BEADEL, HENRY GRANT . . .	97, Gresham Street, E.C.
1881	1890, Nov. 22	*†BEADEL, MAURICE FREDERICK	97, Gresham Street, E.C.
2451	1891, Nov. 4	*BEASLEY, JOHN ARTHUR LLEWELLYN	{ Kirby Muxloe, Leicester.
2651	1894, Oct. 30	*BEKEN, GEORGE, JUN.	65, Cazenove Road, Stamford Hill, N.
1594	1889, Feb. 25	*†BELCHER, EDWARD JOHN . .	Wantage, Berks.
2652	1894, Oct. 30	*BELL, HERBERT OWEN	9, Victoria Street, S.W.

† Special Sanitary Science Certificate.

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2625	1894, Feb. 23	*BIDWELL, JOHN EVANS . . .	St. Mary's, Ely, Cambridgeshire.
388	1875, Feb. 1	BIDWELL, SHELFORD . . .	Estates Office, Drayton Manor, Tamworth.
1283	1885, Dec. 7	*BLUNDELL, HARRY, A.M.I.C.E.	{ Manchester, Sheffield, and Lincolnshire Rail- Engineer's Office, Manchester.
1158	1881, May 5	BLUNT, HERBERT ARTHUR SCAWEN	{ Estate Office, Birrons, near Canterbury, Kent.
2570	1893, Oct. 4	*BODGER, PERCY MORRIS . . .	Cardington House, Cardington, Bedfordshire.
1159	1884, May 5	BOND, FREDERICK GEORGE . . .	Old Bank House, Ipswich.
2653	1894, Oct. 30	*BOOTH, GILBERT WILLIAM . . .	School Board Offices, Victoria Embankment, W.
1881	1886, Dec. 6	*BOUSFIELD, EDWIN VAUGHAN DAVENPORT	{ 99, Gresham Street, E.C.
2133	1891, May 23	*BOWDEN, ERNEST NEWTON . . .	14, Ridgefield, John Dalton Street, Manchester.
2134	1891, May 23	*BOWDEN, JOHN FRIENDSHIP . . .	3, Gloucester Villas, Newport, Barnstaple, Devon.
1523	1888, Dec. 10	*BOWER, ARTHUR WENTWORTH CHIVERS	{ 35, Carlton Road, Worksop.
2654	1894, Oct. 30	*BRADLEY, JAS. WM., A.M.I.C.E.	{ Borough Engineer and Surveyor's Dept., Town Hall, Wolverhampton.
2571	1893, Oct. 4	*BRADSHAW, HARRY GREAVES . . .	26, Demesne Road, Alexandra Park, Manchester.
1965	1891, Jan. 17	*BREVETOR, THOMAS	Fillmore, Ventura County, California, U.S.A.
1663	1889, Dec. 9	*BRIDGFORD, LEO APPLETON . . .	28, Cross Street, Manchester.
1374	1887, Feb. 21	*BRIGGS, JOHN	London County Council, Spring Gardens, S.W.
2506	1892, Nov. 28	*BRINKWORTH, ROBERT EDWIN . . .	Brookfield, Chippenham, Wilts.
2655	1894, Oct. 30	*BRINSLEY, HERBERT GEORGE WILLIAM	{ 30 & 31, New Bridge Street, Ludgate Circus, E.C.
1073	1884, Jan. 28	BROWN, ALEXANDER	Home Farm, Hothfield, Ashford.
2507	1892, Nov. 28	*BROWN, GEORGE TURVILLE . . .	34, Great George Street, S.W.
847	1882, Dec. 18	BROWN, WILLIAM ARTHUR . . .	146, Goswell Road, E.C.
1410	1887, Dec. 19	*BROWN, WILLIAM EDWARD . . .	Reading Villa, Denmark Road, Watford, Herts.
2626	1894, Feb. 23	*BROWN, WILLIAM LOBIN TRANT . . .	Public Offices, Dyne Road, Kilburn, N.W.
2656	1894, Oct. 30	*BRUCE, ALEXANDER DAVID . . .	146, Queen's Road, Norwich, Norfolk.
944	1883, May 21	BUCKLAND, WILLIAM THOMAS . . .	9, Whitehall Place, S.W.
1691	1890, Jan. 6	*BULBECK, GEORGE	162, Bishop's Road, Fulham, S.W.
2508	1892, Nov. 28	*BURDER, REGINALD EDWARD CAMPBELL	{ Ham Rectory, Hungerford, Berks.
1412	1887, Dec. 19	*BUSS, FLEETWOOD GEORGE WILLIAM	{ City Bank Chambers, 44, Theobald's Road Bedford Row, W.C.
2657	1894, Oct. 30	*BUTLER, ALBERT ERNEST . . .	Bearwood Farm, Wokingham, Berks.
1160	1884, May 5	BUTTERWORTH, JOSIAH	Mansfield, Notts.
2658	1894, Oct. 30	*CAMBRIDGE, WILLIAM JAMES . . .	{ Heckford Lodge, Eaton Hastings, Faringdon Berks.
1834	1886, Dec. 6	*CAMPBELL, COLIN	Bretby, near Burton-on-Trent.
799	1882, Apr. 24	CARD, HENRY	North Street, Lewes, Sussex.
249	1870, Dec. 12	CARDALL, FREDERIC WILLIAM . . .	9, Whitehall Place, S.W.

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2659	1894, Oct. 30	*CARNELL, SYDNEY GEORGE . .	Orsett, Essex.
2452	1891, Nov. 4	*†CARR, THOMAS EDMUND . .	Moor Monkton Rectory, York.
1418	1887, Dec. 19	*CARTER, ALFRED PRESLEY . .	67, Cromwell Avenue, Highgate, N.
1572	1889, Jan. 28	*CHALCRAFT, HENRY TERRELL .	6, Bishopsgate Street Without, E.C.
2660	1894, Oct. 30	*†CHAMBERS, THEODORE; GERVASE	4, Bloomsbury Place, W.C.
2572	1893, Oct. 4	*CHAMPION, GEORGE ERNEST .	Redwall Farm, Linton, Kent.
1006	1888, Dec. 17	CHAPMAN, VAUGHAN GODFREY } ST. JOHN }	82, Queen Street, E.C
1525	1888, Dec. 10	*CHENEY, EDWIN JOHN . . .	Brooks Hall, Ipswich, Suffolk.
2509	1892, Nov. 28	*CHILD, CHARLES	Dalgan Park, Shrute, Tuam, Co. Mayo, Ireland.
1526	1888, Dec. 10	*CHILD, EDMUND HERBERT . .	Sandiacre, near Nottingham.
426	1876, Feb. 7	CLAYDEN, WALTER	6, Moorgate Street, E.C.
1665	1889, Dec. 9	*†COLBOURN, HENRY JAMES . .	Woolhampton, near Reading, Berks.
1202	1884, May 26	COLLIER, ARTHUR CHARLES . .	4, Frederick's Place, E.C.
1891	1890, May 29	*COLLYER, DANIEL WILLIAM . .	Sharples Hall, Bolton-le-Moors, Lanc.
2510	1892, Nov. 28	*COOKE, LIONEL	20, New Bridge Street, E.C.
320	1874, Jan. 5	COOKE, WILLIAM G., A.R.I.B.A.	35, Walbrook, E.C.
2627	1894, Feb. 23	*†COOPER, ALFRED WILLIAM . .	{ School Board for London, Victoria Embankment, W.C.
747	1882, Feb. 13	COWPER, RICHARD WILLIAM . .	81, High Street, Sittingbourne, Kent.
2573	1893, Oct. 4	*COX, REGINALD JOHN	19, Preston Street, Brighton.
222	1870, Jan. 10	CRAWLEY, WILLIAM JEEVES . .	Sayesbury, Sawbridgeworth, Herts.
2661	1894, Oct. 30	*CREGEEN, HUGH SIOWELL, JUN.	42, Freeland's Road, Bromley, Kent.
615	1881, Mar. 21	CRESSWELL, JOHN THEODORE } ROSS }	9, Whitehall Place, S.W.
2455	1891, Nov. 4	*†CRIER, JOHN THOMAS	2, Surreyville Gardens, Barnes.
2511	1892, Nov. 28	*CROOKES, CHARLES REGINALD .	Melrose, Church Road, Richmond.
2662	1894, Oct. 30	*CROSIER, CHARLES	Masonic Hall, Lowestoft, Suffolk.
1335	1886, Dec. 6	*CROSLAND, WALTER	Estate Office, Buscot Park, Faringdon, Berks.
2138	1891, May 23	*†CROSS, ARNOLD CHARLES MARTIN	Westminster Chambers, 9, Victoria Street, S.W.
1548	1889, Jan. 4	*CROUCH, JAMES LEONARD . . .	3, Guildhall Chambers, 33, Basinghall Street, E.C.
587	1879, Mar. 17	CUDLIPP, WILLIAM	33, Poultry, E.C.
877	1883, Jan. 29	CUMBERBATCH, CARLTON PARRY	9, Whitehall Place, S.W.
945	1883, May 21	DAFFARN, THOMAS ALFRED . .	7, St. James's Street, S.W.
2628	1894, Feb. 23	*DARBISHIRE, HARRY VERNON .	30, Charles Street, Berkeley Square, W.
2574	1893, Oct. 4	*DAVID, GEORGE WILLOUGHBY .	Old Bank Chambers, 27, High Street, Cardiff.
2575	1893, Oct. 4	*†DAVIES, CYRIL FROODVALE . .	Froodvale, Llanwrda, South Wales.
2139	1891, May 23	*DAVIS, NEVILLE B., A.M.I.C.E.	Waterworks Office, Leicester.
1008	1883, Dec. 17	DAWSON, WALTER HENRY . . .	Forster Estate Office, Southend, Catford, S.E.

Dip. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	
2576	1893, Oct. 4	*¶ DEBENHAM, FREDERIC KERSEY	Heath House, Stepney, E.
2731	1895, Mar. 18	*DELAMARE, FRANK	{ 1, Kingsley Mansions, Queen's Club Gar West Kensington, W.
2663	1894, Oct. 30	*DINWIDDY, DONALD	Croom's Hill, Greenwich, S.E.
1528	1888, Dec. 1	*DIXON, FRANCIS EDWARD . .	{ Local Board Offices, Bamber Bridge, Walto Dale, near Preston.
748	1882, Feb. 13	DREW, ALLEN	80, Cheapside, E.C.
2629	1894, Feb. 23	*DRUCE, EDRIC	The Dairy Institute, Worleston, Nantwich.
2577	1893, Oct. 4	*¶ EASON, EDWARD WILLIAM. .	43, Bishopsgate Street Without, E.C.
2578	1893, Oct. 4	*EASTON, WALTER JOHN. . .	1. Colville Road, Bayswater, W.
2579	1893, Oct. 4	*¶ EDMONDS, JOHN	Redwall Farm, Linton, Kent.
2580	1893, Oct. 4	*ELGAR, WALTER ROBINSON. .	Endsleigh Villa, Park Road, Sittingbourne, I
2514	1892, Nov. 28	*¶ ELLIS, ALBERT EDWARD . .	Bedford Chambers, Exeter, Devon.
2664	1894, Oct. 30	*EVE, CHARLES GERALD	2, St. Paul's Square, Bedford.
2515	1892, Nov. 28	*EVERED, GILLIEBRAND ELWIN	3, Guildhall Chambers, 33, Basinghall Street, J
2516	1892, Nov. 28	*EVERETT, ARTHUR SHERMAN .	14, Homefield Road, Wimbledon, S.W.
2665	1894, Oct. 30	*EVERINGTON, JOHN	{ Merton House, Dulwich Wood Park, Norw S.E.
2666	1894, Oct. 30	*¶ EVES, FRANCIS GEORGE BERTRAM	54, High Street, Uxbridge, Middlesex.
1667	1894, Oct. 30	*FAGG, EDWIN WILLIAM	{ 12, Lower Phillimore Place, Kensington 1 Street, W.
609	1881, Feb. 7	FEW, HARRY GARRARD	3, Upper Richmond Road, Putney, S.W.
1668	1894, Oct. 30	*FINCH, CLEMENT ROBERT . .	{ Leverstock Green Vicarage, Hemel Hempt Herts.
2517	1892, Nov. 28	*¶ FINN, FRED.	3, Milton Villas, Sevenoaks, Kent.
1123	1884, Mar. 10	FITNESS, JOHN FRANCIS	80, Cheapside, E.C.
2581	1893, Oct. 4	*¶ FITT, HARRY CHARLES	10, Lothair Road, Finsbury Park, N.
916	1883, April 2	FLETCHER, GEORGE RIVERS. . .	2, Basinghall Street, E.C.
2582	1893, Oct. 4	*FLETCHER, HERBERT PHILLIPS	29, New Bridge Street, Ludgate Circus, E.C.
1888	1890, Nov. 22	*FORREST, WILLIAM	Windsor Estate Office, St Fagans, Cardiff.
1775	1890, Mar. 24	*FORSTER, WALTER HILL	Queen Street, Tombland, Norwich.
2519	1892, Nov. 28	*¶ FOSTER, JAMES HERBERT } FURMEDGE	33, Poultry, E.C.
2732	1895, Mar. 18	*FOX, CHARLES EDWARD	22, George Street, Halifax, Yorkshire.
2669	1894, Oct. 30	*FOX, FREDERICK RUSSELL . .	1, Ashley Road, Barnstaple, North Devon.
1693	1890, Jan. 6	*GALSWORTHY, VINCENT SOMERS.	2 & 3, Serle Street, Lincoln's Inn, W.C.
1889	1890, Nov. 22	*¶ GARRARD, ARTHUR NORMAN .	8, Frederick's Place, Old Jewry, E.C.
2670	1894, Oct. 30	*GARRETT, ARTHUR BERRY . . .	195, Maida Vale, W.
702	1882, Jan. 16	GARROD, HERBERT JAMES . . .	Cheveley, Newmarket.

Imp. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	
2521	1892, Nov. 28	*J GERMAN, GEORGE, JUN. . .	Estate Offices, Ashby-de-la-Zouch.
2671	1894, Oct. 30	*GILBERT, JOHN SAINSBURY . .	62, Old Broad Street, E.C.
2672	1894, Oct. 30	*GLOVER, HENRY ALEXANDER . .	1, Motcomb Street, S.W.
1886	1887, Mar. 21	*GOLIGHTLY, CHARLES HUGH . .	Downderry, St. German's, Cornwall.
956	1883, May 25	GORE, WILLIAM JOLL	22, Conduit Street, W.
1096	1884, Feb. 11	GOW, JAMES	9, Whitehall Place, S.W.
1669	1889, Dec. 9	*GRANT, JOSEPH	Avisford, Upper Addiscombe Road, Croydon.
2583	1893, Oct. 4	*GRAY, PERCY WILLIAM	4, Arundel Villas, Station Road, Cambridge.
2141	1891, May 28	*GREEN, EDMUND HORACE	28 & 29, St. Swithin's Lane, E.C.
2584	1893, Oct. 4	*GREEN, FREDERICK ALGERNON . .	28 & 29, St. Swithin's Lane, E.C.
1012	1883, Dec. 17	GREEN, JAMES HENRY TOWNSEND .	22, Chancery Lane, W.C.
1418	1887, Dec. 19	*GREEN, THOMAS JOHN	13, King Street, Maidstone, Kent
1230	1884, Dec. 8	*GREENOP, EDWARD	74, Bonham Road, Brixton Rise, S.W.
2673	1894, Oct. 30	*GRIFFIN, ALFRED	{ St. Thomas' Chambers, 24, Railway Approach, London Bridge, S.E.
2522	1892, Nov. 28	*GRIGGS, HY. JENNER, A.R.I.B.A.	Metropolitan Bank Chambers, Newport, Mon.
1532	1888, Dec. 10	*GRIMES, RALPH FEARON	{ Post Office, Redland, near Brisbane, Queensland, and Thurleigh House, 6, Nightingale Lane, Clapham Common, S.W.
1076	1884, Jan. 28	GRIMWADE, HENRY	Colchester, Essex.
2674	1894, Oct. 30	*J GROVER, PHILIP GORDON . . .	3, Market Square, Dover.
1550	1889, Jan. 14	*GUNTER, JAMES	Estate Office, Glasbury, Radnorshire.
2523	1892, Nov. 28	*J HAIGH, THOMAS FREDERICK . .	{ Valuation Offices, 146, High Street, Colchester, Essex.
2524	1892, Nov. 28	*HALES, ARTHUR JOHN	48, Hillmartin Road, N.
1291	1884, Dec. 8	*HALKYARD, WILLIAM REDFORD . .	Oakfield Styal Road, Wilmslow, Cheshire.
1179	1884, May 19	HALL, CHARLES PELL	Park Farm Office, Woburn, Beds.
770	1882, Feb. 27	HAMILTON, JOHN PAYNTER	64 and 65, Coleman Street, E.C.
2143	1891, May 28	*J HAMPTON, GEORGE FREDERICK WILLIAM	{ 1, Cockspur Street, S.W.
2525	1892, Nov. 28	*HANKINSON, FRANCIS HENRY . .	Glendalyn, Snowdon Road, Bournemouth, Hants
2675	1894, Oct. 30	*HARDIMAN, HARRY	Colwyn House, Priory Avenue, Hastings.
1419	1887, Dec. 19	*HARDING, FREDERICK ALLCROFT .	44A, Wilton Road, Victoria Station, S.W
614	1881, Feb. 21	HARPER, EDGAR JOSIAH	{ Estate Office, London County Council, Spring Gardens, S.W.
2676	1894, Oct. 30	*HARRISON, GEORGE JOHN RO- BERTSON	{ 13, Clarendon Road, Clapham, S.W.
2585	1893, Oct. 4	*HAWES, FREDERICK KIRK	North Collingham, Newark, Notts.
2677	1894, Oct. 30	*HEASLER, HOLLAND CHARLES . .	Verandah Cottage, Hill Rise, Richmond, Surrey.
1287	1885, Dec. 7	*HEBBLETHWAITE, CHAS. HENRY .	Hopwood Hall, Halifax, Yorkshire.
1014	1883, Dec. 17	HEBDEN, GEORGE RADCLIFFE . . .	8, Frederick's Place, Old Jewry, E.C.
2678	1894, Oct. 30	*HECKFORD, HARLEY	Rutland House, 14, Highbury New Park, N.
588	1880, Dec. 13	HEDGER, ARTHUR CONSTANTINE . .	44, Charing Cross, S.W.

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2526	1892, Nov. 28	*†HELLICAR, GEORGE THOMAS . . .	95, Osbaldeston Road, Stoke Newington, N.
1353	1887, Jan. 10	*HENDERSON, RICHARD . . .	Portland Estate Office, Kilmarnock.
928	1883, April 16	HENRY, EDWARD HUGH . . .	63, High Street, Clapham, S.W.
2679	1894, Oct. 30	*¶HEWARD, ERNEST JAMES . . .	52, Wickham Road, Brockley, S.E.
2586	1893, Oct. 4	*HEWETT, GEORGE THOMPSON . . .	143, High Street, Guildford, Surrey.
850	1882, Dec. 18	HEWITT, WILLIAM . . .	Penn Grove, Aylstone Hill, Hereford.
948	1888, May 21	HICKS, STANLEY . . .	10, Lincoln's Inn Fields, W.C.
1339	1886, Dec. 6	HILL, ALFRED . . .	Main Drainage Works, Stafford.
1015	1883, Dec. 17	HINCHLIFFE, JOHN, JUN. . .	Bullhouse Hall, Penistone, Sheffield.
1892	1890, Nov. 22	*HODGKINSON, JAMES HENRY . . .	2, Ashlynn, Mossley Road, Ashton-under-L.
908	1883, Feb. 26	HOLBECHE, EMILIAN HENRY . . .	Weston Cottage, Park Road, Loughborough.
2587	1893, Oct. 4	*¶HOLIDAY, PERCY CAVE . . .	Bicester, Oxfordshire.
2458	1891, Nov. 4	*HOLLIS, HERBERT . . .	Potosi, Battè P.O., Jamaica.
2459	1891, Nov. 4	*HOLLIS, RALPH . . .	Springfield, Skirlaugh, Hull.
879	1883, Jan. 29	HOLMES, JAMES THOMAS . . .	97, Gresham Street, E.C.
2680	1894, Oct. 30	*HOLMES, JOHN EDWARD . . .	Ilton, 69, Amersham Road, New Cross, S.E.
1595	1889, Feb. 25	*HOMAN, HUBERT FRANKLIN . . .	146 and 147, Eastgate, Rochester, Kent.
1181	1884, May 19	HOOPER, ALFRED FREDERICK . . .	1, Laura Villas, London Road, Andover, Har.
1446	1888, Jan. 23	*¶HOOPER, CECIL HENRY . . .	Highlands, Swanley, Kent
866	1883, Jan. 15	HOWELL, ERNEST JOHN . . .	116, Cromwell Road, S.W.
1893	1890, Nov. 22	*INNES, GILBERT PLANTAGENET } MITCHELL }	29, Great George Street, S.W.
2681	1894, Oct. 30	*IRVINE, ARCHIBALD WYNDHAM . . .	P.O. Box 855, Johannesburg, S.A.R., Transvaal
2682	1894, Oct. 30	*JACKSON, ALFRED ERNEST . . .	Wiggin House, Sheepridge, Huddersfield.
2683	1894, Oct. 30	*JACKSON, EDWARD HENRY . . .	Springfield Place, near Chelmsford.
2527	1892, Nov. 28	*¶JARMAN, FRANK WILMOT . . .	4, High Street, Croydon.
2684	1894, Oct. 30	*JARMAN, WILLIAM . . .	Clonakilty, 140, Wightman Road, Hove, Brighton.
2630	1894, Feb. 23	*JARRETT, THOMAS WILLIAM . . .	Murston House, Murston, Sittingbourne.
2588	1893, Oct. 4	*¶JEFFREE, SYDNEY . . .	Howard Lodge, Atkins Road, Clapham Park, S.W.
2589	1893, Oct. 4	*¶JENKINSON, JOHN . . .	13, Downe Terrace, Richmond, Surrey.
2685	1894, Oct. 30	*JENNER, WILLIAM . . .	1, Western Road, Hove, Brighton.
550	1879, Nov. 24	JESSETT, CHARLES . . .	62, Old Broad Street, E.C.
2460	1891 Nov. 4	*JESSETT, CHARLES EDWARD } VERNON }	58, Cheriton Square, Elmfield Road, Balham, S.W.
2528	1892, Nov. 28	*JOHNS, PERCY . . .	{ Borough Surveyor's Office, Town Hall, E.
2529	1892, Nov. 28	*¶JOHNSON, BERNARD MARR . . .	9, Whitehall Place, S.W.
1875	1887, Feb. 21	*JONAS, SAMUEL MARSHALL . . .	27, Market Hill, Cambridge.
2686	1894, Oct. 30	*JONES, DAVID PUGH . . .	Brondreg Villa, Pontypridd, South Wales.

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1018	1883, Dec. 17	JORDAN, GEORGE HENRY . . .	16, Whitehall Place, S.W.
2461	1891, Nov. 4	*JOYCE, HARRY WARD . . .	Wood Street, Ashby-de-la-Zouch, Leicestershire.
1323	1886, May 17	*JULL, WILLIAM VINCENT . . .	17, Great George Street, S.W.
1894	1890, Nov. 22	*KAY, WALTER ROBERT . . .	Mount Sion House, Bury, Lancashire.
2687	1894, Oct. 30	*KEEP, WILLIAM HENRY . . .	Fontmell Magna, Shaftesbury, Dorset.
2590	1893, Oct. 4	*KENNETT, CHARLES ARTHUR . . .	Camperdown, 30, Nelson Road, Hastings.
1077	1884, Jan. 28	KERR, ARTHUR HERBERT . . .	Blake Street, York.
2688	1894, Oct. 30	*KIESER, WILLIAM HENRY GUSTAV . . .	Town Hall, Torquay, Devon.
2689	1894, Oct. 30	*KILICK, ANTHONY EDWARD . . .	Oldenburg House, Tunbridge Wells, Kent.
1387	1887, Mar. 21	*KING, WILLIAM ISAAC . . .	The Grange, Highgate, N.
2530	1892, Nov. 28	*KNIGHT, GEORGE EDWARD . . .	2, West Chislehurst Park, Eltham, S.E.
2591	1893, Oct. 4	*LANCASTER, JOHN ROY . . .	Putney Hill, S.W.
1969	1891, Jan. 17	*LANDSDOWN, GEORGE ARTHUR . . .	5 and 7, Warwick Street, Charing Cross, S.W.
2051	1891, Mar. 14	*LARKIN, RICHARD WEBSTER . . .	Cowley House, Cavendish Road, Balham, S.W.
2494	1892, Feb. 26	*LAWLEY, FREDERICK WILLIAM . . .	57, Cheapside, E.C.
2690	1894, Oct. 30	*LEANING, WILLIAM ARTHUR . . .	90, Grove Lane, Denmark Hill, S.E.
441	1876, Apr. 3	LEE, GEORGE CANSFIELD . . .	North Eastern Railway, York.
2144	1891, May 23	*LEVERTON, FRANK JOHN WAL- DEMAR	H.M. Office of Works, Petergate, Nottingham.
1971	1891, Jan. 17	*LEWIS, ARTHUR LLEWELYN . . .	12, Armingher Road, Shepherd's Bush, W.
2691	1894, Oct. 30	*LIGHTFOOT, FRANCIS PRIDEAUX . . .	{ Estate Office, Boughton House, Kettering, Northamptonshire.
1143	1884, Apr. 21	LIGHTFOOT, JOHN GEORGE . . .	9, Whitehall Place, S.W.
2531	1892, Nov. 28	*LITTLE, HENRY	Middle Aston, Steeple Aston, Oxon.
2462	1891, Nov. 4	*LONGSDON, ERNEST MOREWOOD . . .	Town Hall, Bakewell.
1183	1884, May 19	LOVESAY, WILLIAM	4, Frederick's Place, E.C.
1355	1887, Jan. 10	*LOWE, CHARLES ROBERT	30, Somerset Street, Portman Square, W.
2532	1892, Nov. 28	*LUCAS, JOHN ARCHIBALD	Guildhall Chambers, High Street, Exeter.
489	1877, May 14	LUCAS, JOSEPH	21, Defoe Road, Tooting Graveney, S.W.
1204	1884, May 26	LYNCH, JAMES HENRY	302, Regent Street, W.
2692	1894, Oct. 30	*LYONS, EDWARD COLVILL	14, Beaumont Terrace, Spennymoor, Co. Durham.
1144	1884, Apr. 21	MCCALLUM, PETER SERVICE	Midland Railway, Derby.
2693	1894, Oct. 30	*MC CARTHY, HENRY ROBERT	{ School Board Offices, Victoria Embankment, W.C.
2592	1893, Oct. 4	*MACER, ALFRED THOMAS	39, Cheapside, E.C.
2593	1893, Oct. 4	*MADDOX, HARRY EDWARD	Milford House, John Street, Hampstead, N.W.
2694	1894, Oct. 30	*MANN, FREDERICK CHARLES THOMAS	{ Woking, Surrey.

Dip. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	
2594	1893, Oct. 4	*MARRIOTT, CECIL WYNN . . .	Brackley, Northamptonshire.
2831	1894, Feb. 23	*MARTIN, ALFRED JOHN . . .	16, Duke Street, Chelmsford.
1555	1889, Jan. 14	*MARTIN, HEBER GAMBLING . .	Highfield House, Littleport.
2595	1893, Oct. 4	*MARTIN, SAMUEL	Bolney Grange, Havelock Road, Croydon.
1677	1889, Dec. 9	*MASON, CHARLES WILLIAM HAYLEY	38, Harewood Square, N.W.
2596	1893, Oct. 4	*MATHEWS, LEWIS OSLER . . .	32, Augustus Road, Edgbaston, Birmingham.
2538	1892, Nov. 28	*MAUGHAN, JOHN	Estate Office, Jervaulx Abbey, Bedale, Yorks.
2695	1894, Oct. 30	*MAY, WILLIAM CHARLES . . .	Tregarron, Melville Road, Walthamstow, Ess.
2597	1893, Oct. 4	*MELLOR, JAMES FREDERICK . .	110, St. James's Street, Brighton.
1447	1888, Jan. 23	*MELROSE, FRANK	4, Whitehall, S.W.
2535	1892, Nov. 28	*MENZIES, ROBERT	Merton Estate Office, Thetford, Norfolk.
2696	1894, Oct. 30	*MERCER, CHARLES EDWARD . .	150, Court Hill Road, Lewisham, S.E.
1145	1884, Apr. 21	MERRETT, JAMES.	9, Whitehall Place, S.W.
2536	1892, Nov. 28	*MEW, ROBERT HEATH	Nuneham Lodge, Redhill, Surrey.
2697	1894, Oct. 30	*MILLER, FREDERICK WILLIAM .	77, Grosvenor Road, Pimlico, S.W.
2537	1892, Nov. 28	*MILLER, GEORGE FREDERICK . .	Town Hall, Hastings.
752	1882, Feb. 13	MILNES, ROBERT, JUN.	City Surveyor's Office, Guildhall, E.C.
2698	1894, Oct. 30	*MITCHELL, LEWIS	Hurlford, Kilmarnock, N.B.
1973	1891, Jan. 17	*MOLYNEUX, HERBERT ERNEST .	6, Bridge Terrace, Newton Abbot, South Dev.
2598	1893, Oct. 4	*MONSON, HENRY JOHN	{ South Eastern Agricultural College, Wye, Ashford, Kent.
2699	1894, Oct. 30	*MORRIS, WILLIAM HENRY . . .	West House, Chirbury, Shropshire.
2539	1892, Nov. 28	*MORRISH, HUGH KENNETH . . .	7, Commercial Arcade, Guernsey.
2632	1894, Feb. 23	*MORRISON, DANIEL	42, High Street, Fulham, S.W.
2599	1893, Oct. 4	*MORRISON, GERARD DONALD . .	High Street, Reigate, Surrey.
678	1889, Dec. 9	*MUIR, JAMES	The Yorkshire College, Leeds.
2000	1893, Oct. 4	*NEIGHBOUR, CHARLES EDMUND	Fair View, Sevenoaks, Kent.
2700	1894, Oct. 30	*NEUBRONNER, HARRY ALFRED .	15, Whitehall Place, S.W.
2701	1894, Oct. 30	*NICHOLLS, EDWARD ALFRED . .	6, Buckingham Terrace, New Southgate, N.
1974	1891, Jan. 17	*NOCKOLDS, ALFRED GEORGE . .	Castle Hill House, Saffron Walden, Essex.
1556	1889, Jan. 14	*NOCKOLDS, MARTIN CHARLES } HUBERT }	Saffron Walden, Essex.
2633	1894, Feb. 23	*NORMAN, JAMES NOEL	34, Great George Street, S.W.
1128	1884, Mar. 10	NORRIS, EDWARD JAMES	Netherleigh, South Nutfield, Surrey.
2541	1892, Nov. 28	*OUVRY, PETER ARNOLD	Cranham Hall, Upminster, Essex.
2542	1892, Nov. 28	*OYENDEN, CHARLES	1, Kelsey Square, Beckenham, Kent.

Dip. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	
2702	1894, Oct. 30	*PAGE, STANLEY HATCH . . .	23, High Street, Maidstone, Kent.
2601	1893, Oct. 4	*PAIV, GEORGE LLOYD . . .	Woodhay, Silverdale, Carnforth, Lancashire.
2703	1894, Oct. 30	*PAIN, WILLIAM HENRY . . .	40, Navarino Road, Hackney, N.E.
2495	1892, Feb. 26	*PALMER, WILLIAM EDWARD KING	Huntingdon Lodge, New Maldon, Surrey.
2704	1894, Oct. 30	*PARRY, RICHARD FREDERICK .	Lydbury North, Shropshire.
402	1875, May 10	PAYNE, WILLIAM PERCY . . .	Holmesdale, The Park, Nottingham.
857	1882, Dec. 18	PEACE, ALFRED L., A.M.I.C.E.	Thorne, Doncaster.
2602	1893, Oct. 4	*PEARCE, FRED. W.	Local Board Offices, Wimbledon.
1146	1884, Apr. 21	PEARCE, FREDERICK WILLIAM .	9, Whitehall Place, S.W.
1167	1884, May 5	PEARCE, WILLIAM JOHN . . .	4, Frederick's Place, E.C.
2603	1893, Oct. 4	*PEARSON, HOWARD	15, St. George's Road, Beckenham, Kent.
2634	1894, Feb. 23	*PEGGE, JOHN THOMAS	City Surveyor's Office, Guildhall, York.
1898	1890, Nov. 22	*PERKINS, JOSEPH	{ Claverdon, Willow Road, Balsall Heath, Bir- mingham.
1389	1887, Apr. 18	*PERKS, SYDNEY, A.R.I.B.A. .	28, Dover Street, Piccadilly, W.
1021	1883, Dec. 17	PEWTRESS, HERBERT WILMS- HURST	{ 15, Cursitor Street, Chancery Lane, W.C.
1129	1884, Mar. 19	PHILLIPS, GEORGE CAWKWELL .	Mildmay Road, Chelmsford, Essex.
2705	1894, Oct. 30	*PHILLIPS, FRANCIS JOHN . . .	The Limes, Grove Road, Chelmsford, Essex.
1079	1884, Jan. 28	PHILLIPS JOHN HENRY	130, Mount Street, Berkeley Square, W.
1448	1888, Jan. 28	*PHILLIPS, WILLIAM DEARLOVE .	High Wycombe, Bucks.
1342	1886, Dec. 6	*PHYSICK, WALTER FREDERICK .	30, Somerset Street, Portman Square, W.
2706	1894, Oct. 30	*PILDITCH, JOHN JARVIS. . . .	155, Fenchurch Street, E.C.
1899	1890, Nov. 22	*PINDER, RICHMOND	49, Upper Baker Street, N.W.
2496	1892, Feb. 26	*POCHIN, THOMAS CLEMENT . .	5, Rose Bank, Manningham, Bradford, Yorkshire.
2497	1892, Feb. 26	*POGGIO, FLOI JOHN	{ Surveyor's Department, Public Offices, Dyne Road, Kilburn, W.
2707	1894, Oct. 30	*POWELL, CHARLES REGINALD EVERNDEN	{ Downside, Okehampton, Devon.
2543	1892, Nov. 28	*PRALL, HERBERT ALEXANDER .	Martin's Bank Chambers, Dartford, Kent.
1900	1890, Nov. 22	*PRALL, HERBERT EDWARD . . .	Martin's Bank Chambers, Dartford, Kent.
1343	1886, Dec. 6	*PRATER, THOMAS HERBERT . .	{ Parlington Estate Office, Aberford, near Leeds, Yorkshire.
2544	1892, Nov. 28	*PRICE, RICHARD ARNOLD	2, Clapham Park Road, Clapham Cross, S.W.
2708	1894, Oct. 30	*PRITCHARD, HERBERT ALFRED .	14, Warwick Road, Earl's Court, S.W.
1600	1889, Dec. 9	*PUCKRIDGE, PERCIVAL MARTIN .	82, Queen Street, E.C.
2733	1895, Mar. 18	*PUNCHARD, CHARLES BATES . .	{ Underley Estate Office, Kirkby Lonsdale, West- moreland.
2635	1894, Feb. 23	*RAFFETY, HERBERT WILLIAM .	High Wycombe, Buckinghamshire.
1289	1885, Dec. 7	*RAND, JOHN	Sudbury Priory, near Harrow.
2709	1894, Oct. 30	*READ, WALTER HERBERT	8, The Avenue, Castle Hill, Ealing, W.
881	1883, Jan. 29	RIGDEN, CHARLES FURNER . . .	Heathlands, Weybridge.
753	1882, Feb. 13	ROBERTS, CHARLES GORDON . . .	42, New Broad Street, E.C.

Dip No.	Date of Election.	PROFESSIONAL ASSOCIATES.	
2710	1894, Oct. 30	*ROBERTS, JOSEPH WILLIAM GEORGE	} Preston. Yeovil. Somerset.
2498	1892, Feb. 26	*ROBINS, PHILIP SEYMOUR . .	5, Waterloo Place, S.W.
1423	1887, Dec. 19	*ROBINSON, ALFRED WHITMORE .	Eastfield, Leicester.
725	1882, Jan. 30	ROBINSON, JAMES THOMAS . .	7, John Street, Adelphia, W.C.
803	1882, Apr. 24	ROBINSON, MARTIN CATLIN . .	Wenden, Saffron Walden, Essex.
1130	1884, Mar. 10	ROSE, EDWARD JOSEPH	Stowford, near Headington, Oxfordshire.
1081	1884, Jan. 28	ROSS, DAVID JAMES. A.M.I.C.E.	Surveyors' Office, Guildhall, E.C.
1695	1890, Jan. 6	*ROWLEY, WILLIAM TAYLOR . .	Royston, Cambridgeshire.
1901	1890, Nov. 22	*RUDDLE, FRANK J.	London County Council, Spring Gardens, S.W.
1024	1883, Dec. 17	SABIN, JOSEPH HENRY	16, Whitehall Place, S.W. (Professional Associate of Council)
2734	1895, Mar. 18	*SAINE, ALFRED JOHN	{ Stapleton Urban District Council, Fishpond near Bristol.
2604	1893, Oct. 4	*SAKER, SYDNEY	3, Bank Buildings, Hastings.
2605	1893, Oct. 4	*SALE, ARTHUR REED	32A, Lowther Street, Carlisle.
1424	1887, Dec. 19	*SALT, REGINALD NOWELL . .	Quarry Place, Shrewsbury.
971	1883, May 25	*SATCHELL, CHARLES	{ Asbburnham, West Cliff Gardens, Bournemouth. Hants.
1728	1890, Feb. 10	*SATCHELL, HERBERT A. A.R.I.B.A.	3, Verulam Buildings, Gray's Inn, W.C.
1147	1884, Apr. 21	SAUNDERS, SAMUEL BROWN . .	{ Estate Office, L. & S. W. Ry., Waterloo Station. S.E.
2711	1894, Oct. 30	*SAWYER, JOHN ASHTON	5, Meyrick Terrace, White Cross Road, Hereford.
1148	1884, Apr. 21	SCARLETT, HARRY	Preston House, Fittle, Lewes, Sussex.
2712	1894, Oct. 30	*SCORER, ALFRED GEORGE . .	Flaxmoor, Caston, Attleborough, Norfolk.
2713	1894, Oct. 30	*SCOTT, ARCHIBALD LACY . .	Bury St. Edmund's, Suffolk.
2545	1892, Nov. 28	*SCOTT, THOMAS	The Rectory, Lavenham, Suffolk.
2637	1894, Feb. 23	*SEDDON, GEORGE FARQUHARSON	27, Bow Lane, E.C.
2468	1891, Nov. 4	*SEDGWICK, RUPERT WILLIAM .	38, High Street, Watford.
1729	1890, Feb. 10	*SELBY, FRANK	44, Chancery Lane, W.C.
1234	1884, Dec. 8	*SELBY, JOHN BASELEY	Atherton Hall, Leigh, near Manchester.
572	1880, Feb. 16	SENBY, JOHN JAMES	London County Council, Spring Gardens, S.W.
1425	1887, Dec. 19	*SHAW, ARTHUR	{ Ramsden Estate Offices, Railway Street, Hereford. dersfield.
1149	1884, Apr. 21	SHERRY, NATHANIEL	45, Fenchurch Street, E.C.
2714	1894, Oct. 30	*SKEAT, ARTHUR PERCIVAL . .	St. Helen's Chambers, York.
858	1882, Dec. 18	SKINGLE, ALFRED	29, Fleet Street, E.C.
2546	1892, Nov. 28	*SKIPPER, HENRY HERBERT . .	{ Superintending Engineer's Office, H.M. Dockyard, Portsmouth.
1050	1884, Jan. 14	SLADE, ISAAC	96, Queen Street, E.C.
2638	1894, Feb. 23	*SLY, JOSEPH TOWNSON	43, Hampton Road, Forest Gate, E.
2715	1894, Oct. 30	*SMITH, ALEXANDER GEORGE . .	46, Sydney Street, Chelsea, S.W.
2606	1893, Oct. 4	*SMITH, FRANK BRAYBROOKE .	{ South Eastern Agricultural College, Wye, Kent. Ashford, Kent.

Dip. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	
2052	1891, Mar. 14	*SMITH, JAMES	{ Borough Surveyor's Office, Town Hall, Buckingham.
152	1868, Nov. 9	SMYTH, EDWARD	{ 9, Whitehall Place, and 52, Wiltshire Road, Brixton, S.W.
		(Professional Associate of Council)	
1905	1890, Nov. 22	*SNAILUM, WALTER WADMAN	Church Street, Trowbridge, Wilts.
2499	1892, Feb. 26	*SOUTTER, ERNEST	23, College Hill, Cannon Street, E.C.
2607	1893, Oct. 4	*SOWELS, WILLIAM CLOWES	East Horsley, Leatherhead.
1906	1890, Nov. 22	*SPELMAN, WILLIAM WILTON RIX	St. Giles Street, Norwich.
2547	1892, Nov. 28	*SQUIRE, GERALD ROBERT	4, Albert Square, Manchester.
868	1883, Jan. 15	STACEY, WILLIAM	80, Cheapside, E.C.
1697	1890, Jan. 6	*STANTON, FRANCIS CHARLES	6, Great College Street, S.W.
2608	1893, Oct. 4	*STALEY, ALBERT HENRY	Coton Road, Nuneaton.
2556	1892, Nov. 28	STAUNTON-WING, GEORGE	The Cedars, Castor, Peterborough.
710	1882, Jan. 16	STEVENSON, FREDERICK J.	4, Frederick's Place, E.C.
828	1882, Dec. 4	STOWER, JOSEPH	29, Fleet Street, E.C.
1578	1889, Feb. 11	*STUCKÉ, WM. HENRY, A.R.I.B.A.	{ P.O. Box 2271, Johannesburg, S.A.R., and P.O. Box 91, Bloemfontein, O.F.S., South Africa.
2716	1894, Oct. 30	*STUPART, CHARLES WALTER	4, Plymouth Road, Totnes, Devon.
1235	1884, Dec. 8	*STURGE, THEODORE	34, Corn Street, Bristol.
1296	1886, Jan. 11	*STURGESS, JOHN MOORE	{ Penshurst Park, near Tunbridge, Kent, and 53, Cockspur Street, Charing Cross, S.W.
1708	1890, Jan. 27	*STURLEY, ARTHUR DYSON	The Hollies, Larkfield Road, Richmond, Surrey.
1978	1891, Jan. 17	*SUMMERFIELD, JOSEPH CHARLES	73, Chelsea Gardens, S.W.
2717	1894, Oct. 30	*TALLENT, EDWIN JAMES	West Acre, Swaffham, Norfolk.
212	1869, Jul. 26	TAYLOR, GEORGE	{ Hillside House, Turner's Hill, Crawley, Sussex, and 6, Queen Anne's Gate, S.W.
2548	1892, Nov. 28	*TAYLOR, HARRY WILLIAM	{ Surveyor's Office, Local Board Offices, Newburn-on-Tyne.
2718	1894, Oct. 30	*TEWSON, LEONARD	80, Cheapside, E.C.
2610	1893, Oct. 4	*THEAKSTON, WILLIAM PEASE	Constable Burton, Finghall, Yorkshire.
2549	1892, Nov. 28	*THOMAS, EDWARD MORGAN DAWSON	{ 41, Gay Street, Bath.
2719	1894, Oct. 30	*THOMAS, ILLTYD	17, Quay Street, Cardiff.
1027	1883, Dec. 17	THOMPSON, ALFRED	{ Estate Department, South Eastern Railway, London Bridge, S.E.
2720	1894, Oct. 30	*THOMPSON, CLAUDE WILLIAM GEORGE HUGH	{ The Vicarage, Framfield, Sussex.
2611	1893, Oct. 4	*THOMPSON, FREDERIC HUBERT	Horsley Vicarage, near Derby.
2721	1894, Oct. 30	*THOMPSON, JOSEPH ATHERDEN	22, Surrey Street, Strand, W.C.
2735	1895, Mar. 18	*THOMPSON, ROLAND O'BRIEN	{ Grove Cottage, Cookham Dean, Maidenhead, Berks.
2722	1894, Oct. 30	*THRING, DOUGLAS THEODORE	Chippenham, Wilts.
2500	1892, Feb. 26	*THURGOOD, ALBERT EDWARD	50, High Street, Guildford, Surrey.

Dip. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	
1100	1884, Feb. 11	THURGOOD, ERNEST CHARLES	27, Chancery Lane, W.C.
1587	1888, Dec. 10	*TILLY, HUBERT DOUGLAS	50, High Street, Maidenhead, Berks
2550	1892, Nov. 28	*TORY, JOHN EDWARD, JUN.	29, Fleet Street, E.C.
1979	1891, Jan. 17	*TOWNSEND, GEORGE JAMES	{ London County Council, 40, Cranen St Strand, W.C.
2736	1895, Mar. 18	*TOWNEND, WILLIAM	Park Farm, Seacroft, near Leeds.
2470	1891, Nov. 4	*TUCKETT, PERCIVAL FOX	2, Basinghall Street, E.C.
1052	1884, Jan. 14	TUDOR, EDWARD CHARLES BU- CHANAN	{ West House, Booth Ferry Road, Gouda, N. shire.
1394	1887, May 28	*TURNER, PERCY	Dale Hall, Henley Road, Ipswich, Suffolk.
2612	1893, Oct. 4	*TYLER, WILLIAM BOTT	Estate Department, Euston Station, N.W.
1168	1884, May 5	UDNY, AUGUSTUS CHARLES	142, Springfield Road, Brighton.
1596	1889, Feb. 25	*VALE, HENRY	Darlington Street, Wolverhampton.
2551	1892, Nov. 28	*VENNING, ALFRED JOHN MEY- BOHM	{ 26, Ker Street, Devonport, Devon.
1907	1890, Nov. 22	*VERITY, ERNEST GEORGE	51, Golden Square, W.
1464	1888, Feb. 20	*WADE, HENRY	10, Pitt Street, Barnsley.
1699	1890, Jan. 6	*WAIN, GEORGE SPARROW	14, Bell Yard, Temple Bar, W.C.
2613	1893, Oct. 4	*WALDRAM, ROBERT EDWARD	7, Orsett Road, Grays, Essex.
576	1880, Mar. 1	WALKER, LEON VICTOR	79, Dunsmure Road, Stamford Hill, N.
1028	1883, Dec. 17	WALLIS, JOHN DAVID	20, Booth Street, Manchester.
1426	1887, Dec. 19	*WARTON, WILFRED	27, Southampton Buildings, Chancery Lane, W.
1030	1883, Dec. 17	WATERER, CLARENCE	Dover House, Chertsey, Surrey.
1980	1891, Jan. 17	*WATSON, CLAUDE HENRY	Greysouthen, Cockermouth, Cumberland.
1751	1890, Feb. 24	WATSON, GEORGE	45, Parliament Street, S.W.
1236	1884, Dec. 8	*WATSON, JAMES BRUCE	Brightwell, Tetworth, Oxon.
1539	1888, Dec. 9	*WATSON, RICHARD	19, Gloucester Road, Newton Abbot, South Devon.
2614	1893, Oct. 4	*WATSON, WILLIAM JAMES	13, Pembroke Square, Kensington, W.
2552	1892, Nov. 28	*WEATHERHEAD, DAVID WILKIN- SON	{ Croft House, Keighley, Yorkshire.
1540	1888, Dec. 9	*WEBB, FREDERIC NOEL	Babraham, Cambrige.
1908	1890, Nov. 22	*WEBSTER, HUGH CALTHROP	97, Gresham Street, E.C.
1031	1883, Dec. 19	WELLS, EDWARD OGBOURN	9, Whitehall Place, S.W.
2553	1892, Nov. 28	*WELLS, WILLIAM HENRY	14, Girdler's Road, West Kensington, W.
2615	1893, Oct. 4	*WEST, CHARLES HENRY EDWARD	Fernville, Fortis Green, Finchley, N.
930	1883, April 16	WESTON, GEORGE	177, Harrow Road, Paddington, W.
941	1883, April 30	WESTON, JOSEPH AURELIUS	83, High Street, Bedford.
1429	1887, Dec. 19	*WHALLEY, FREDERICK HERBERT	{ 98, Church Street, Birkenhead, and 37, Per Street, Chester.

Dip. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	
1430	1887, Dec. 19	*WHEELER, CHARLES TREVOR OGLE	} 18, Parliament Street, S.W.
2554	1892, Nov. 28	*WHEELER, JOHN HENRY . . .	
2616	1893, Oct. 4	*WHITAKER, ERNEST VICTOR . .	{ Gorsty Villa, St. Peter's Road, St. Albans, Herts.
2737	1895, Mar. 18	*WHITBY, HERBERT BATESON . .	
2723	1894, Oct. 30	*WHITTAKER, JOHN DRONSFIELD	Sywell, Northampton.
1440	1888 Jan. 9	*WIGHT, NORMAN.	{ Santa Catalina, Boscombe Park, Bournemouth, Hants.
2146	1891, May 23	*WILKS, ERNEST STRINGER. . .	
2738	1895, Mar. 18	*WILLIAMS, HENRY CUTHBERT . .	13, Albany Road, Stroud Green, N.
442	1876, Apr. 3	WILLIAMS, WILLIAM WELSBY . .	Farnham, Surrey.
2617	1893, Oct. 4	*WILLIS, EDWARD	124, High Street, Eton, Bucks.
1083	1884, Jan. 28	WILLOUGHBY, CHARLES WILLIAM	22, Chancery Lane, W.C.
2618	1893, Oct. 4	*WILSON, ALEXANDER MILLS . .	Banner Cross, Sheffield.
2472	1891, Nov. 4	*WILSON, JAMES CALVERT . . .	Worsthorne Estate Office, Burnley, Lancashire.
2555	1892, Nov. 28	*WILSON, JOHN HAYES	9, Burton Houses, Brief Street, Brixton, S.W.
1449	1888, Jan. 23	*WILSON, WILLIAM EDWARD . .	{ St. Andrew's Chambers, Albert Square, Man- chester.
2147	1891, May 23	*WINDLEY, HENRY CHADWICK . .	
2640	1894, Feb. 23	*WONNACOTT, ERNEST WILLIAM MALPAS. A.R.I.B.A.	} 106, Lancaster Road, W.
1981	1891, Jan. 17	*WOOD, EDWARD BRYAN	
2724	1894, Oct. 30	*WOOD, LESLIE STUART	Aberdeen Lodge, The Ridgway, Enfield, N.
2557	1892, Nov. 28	*WOODS, ARTHUR GEORGE. . . .	4 & 5, Church Parade, Hounslow.
2501	1892, Feb. 26	*WOODWARD, WALTER HENRY . .	69, Kennington Oval, S.E.
1858	1887, Jan. 10	*WOOLNOUGH, JOHN WILLIAM . .	Gladstone Villa, Beamsley Road, Eastbourne.
1431	1887, Dec. 19	*WORTHINGTON, JAMES SCOTT . .	4, Frederick's Place, E.C.
2725	1894, Oct. 30	*WRIGHT, PHILIP CHETWOOD . .	Brattleby Hall, near Lincoln.
395	1880, Dec. 13	WRIGHT, THOMAS HAWKINS. . .	The Hermitage, Thrapstone, Northamptonshire.
2619	1893, Oct. 4	*WRIGHTSON, ROBERT GAR- MONDSWAY	} Aldford, Chester.
2726	1894, Oct. 30	*WYATT, ARCHIBALD	
2620	1893, Oct. 4	*WYLES, JOHN WALTER	Melrose, Cambridge Park, Wanstead, Essex.

Total number of Professional Associates, 436.

Associates.

Date of Election.

1876, Mar. 20	ACLAND, SIR THOMAS DYKE, BART.	} Killerton, Exeter.
1880, Dec. 13	BANKES, JOHN ELDON . . .	4, Elm Court, Temple.
1888, May 14	BARNES, GEORGE FREDERICK .	London County Council, Spring Gardens, S.W.
1868, July 27	BARRY, JOHN WOLFE, C.B., M.I.C.E. (Associate of Council)	21, Delahay Street, S.W.
1875, Dec. 13	BATTEN, JOHN WINTERBOTHAM	3, Harcourt Buildings, Temple.
1879, Feb. 3	BEALE, JAMES SAMUEL . . .	28, Great George Street, S.W.
1892, Feb. 26	BELLEWES, GEORGE OLIVER .	45, Parliament Street, S.W.
1869, Feb. 22	BIDDER, GEORGE PARKER, Q.C.	3, Paper Buildings, Temple.
1875, Feb. 1	BIRCH, ROBERT WILLIAM PEREGRINE, M.I.C.E. . . .	} 5, Queen Anne's Gate, S.W.
1890, Jan. 6	BOULGER, GEORGE EDWARD SIMONDS	} 18, Ladbroke Grove, Notting Hill, W.
1868, Jun. 23	BRAMWELL, SIR FREDK. JOSEPH, BART., F.R.S., M.I.C.E. . .	} 5, Great George Street, S.W.
1884, Feb. 11	BUND, JOHN W. WILLIS. . .	15, Old Square, Lincoln's Inn, W.C.
1890, May 29	CADELL, GEORGE	Langley House, Langley Avenue, Surbiton.
1871, Feb. 13	CASTLE, EDWARD JAMES, Q.C. .	8, King's Bench Walk, Temple.
1876, Nov. 13	CLARKE, DANIEL	Easton Street, High Wycombe, Bucks.
1891, Jan. 17	CLARKE, ERNEST	13, Hanover Square, W.
1883, Dec. 17	CLARKE, SIR EDWARD, Q.C., M.P.	5, Essex Court, Temple.
1883, Dec. 17	CLODE, WALTER	3, Harcourt Buildings, Temple.
1886, Dec. 6	CLUTTON, HUBERT SPENCER .	9, Whitehall Place, S.W.
1894, Oct. 30	COLAM, ROBERT FREDERICK .	4, Essex Court, Temple.
1891, Nov. 4	COWLARD, CHRISTOPHER LETH- BRIDGE	} Launceston, Cornwall.
1885, Jan. 12	CRIPPS, CHARLES ALFRED, Q.C.	2, Mitre Court Buildings, Temple.
1891, Nov. 4	DOWDEN, WALTER ALFRED ALLEN	281, Vauxhall Bridge Road S.W.
1892, Nov. 28	EMDEN, T. WALTER L. . . .	105 & 106, Strand, W.C.
1891, Nov. 4	FORBES, ALEXANDER	3, Golden Square, Aberdeen.
1869, Feb. 22	FOWLER, SIR JOHN, BART., K.C.M.G., F.R.S., M.I.C.E. .	} 2, Queen Square Place, S.W.
1886, Jan. 11	FREAM, WILLIAM	Downton, Wilts.

Date of Election.

ASSOCIATES.

1878, Feb. 11	FREEMAN, GEORGE MALLOWS	11, King's Bench Walk, Temple.
1878, Mar. 11	FRESHFIELD, EDWIN	5, Bank Buildings, E.C.
1876, Mar. 20	FRESHFIELD, WILLIAM DAWES	5, Bank Buildings, E.C.
1890, Feb. 24	GAYTON, CHARLES	Much Hadham, near Wate, Herts.
1879, Apr. 28	GEPP, CHARLES BRAMSTON } OSBORNE	Chelmsford, Essex.
1895, Mar. 18	GLEN, REGINALD CUNNINGHAM	1, New Court, Temple.
1874, Jan. 5	GRANTHAM, RICHARD FUGE, { M.I.C.E.	Northumberland Chambers, Northumberland Avenue, W.C.
1882, Mar. 27	HAMILTON, HENRY BEST HANS	1, Brick Court, Temple.
1884, May 5	HAMOND, THOMAS ASTLEY } HORACE	62, Lincoln's Inn Fields, W.C.
1887, Jan. 24	HUDSON, ALFRED ARTHUR	5, Paper Buildings, Temple.
1880, Dec. 18	JAMES, SIR HENRY, Q.C., M.P.	1, New Court, Temple.
1885, Jan. 12	JONGH, JOHN ISIDORE DE	San José, Costa Rica, Central America.
1887, May 23	KINCH, EDWARD	Royal Agricultural College, Cirencester.
1873, April 21	KING, WILLIAM, M.I.C.E.	Gas Office, Duke Street, Liverpool.
1891, Nov. 4	LEWORTHY, JOHN HENRY	29, Fleet Street, E.C.
1874, Feb. 16	LITTLER, RALPH DANIEL MAKIN- SON, Q.C., C.B.	6, Pump Court, Temple.
1888, Mar. 5	LUARD, MAJOR-GEN. CHARLES } EDWARD, R.E.	Ightham Knoll, near Sevenoaks, Kent.
1891, May 23	MALDEN, WALTER JAMES	Cardington, near Bedford.
1874, Feb. 16	MARRIOTT, THE RIGHT HON. SIR } WILLIAM THACKERAY, Q.C., M.P.	6, Crown Office Row, Temple.
1886, Dec. 6	MARSHALL, FREDERICK, Q.C.	3, Harcourt Buildings, Temple.
1891, Nov. 4	MENCE, PHILLIP ALLAN	29, Fleet Street, E.C.
1888, Nov. 12	MOULTON, JOHN FLETCHER, Q.C., { M.P.	11, King's Bench Walk, Temple.
1882, Dec. 18	MUNTON, FRANCIS KERRIDGE	95A, Queen Victoria Street, E.C.
1894, Feb. 23	PINCHES, EDWARD EWIN	5, Essex Court, Temple, and 1, Nevern Road, South Kensington, S.W.
1888, Mar. 19	POLLARD, EDWARD HUTCHINSON	3, Elm Court, Temple.
1884, Feb. 11	POPE, SAMUEL, Q.C.	38, Parliament Street, S.W.

Date of Election.

ASSOCIATES.

1894, Oct. 30	REDMAN, JOSEPH HAWORTH . . .	2, New Court, Lincoln's Inn, W.C.
1868, Nov. 9	REES, JOHN CHARLES . . .	13, Great George Street, S.W.
1892, Nov. 28	REW, ROBERT HENRY . . .	Norfolk House, Norfolk Street, W.C.
1885, Jan. 26	RICKARDS, ARTHUR GEORGE . .	11, King's Bench Walk, Temple.
1882, Jan. 16	RIGG, HERBERT ADDINGTON . .	9, King's Bench Walk, Temple.
1883, April 2	RYDE, WALTER CRANLEY . . .	1, Brick Court, Temple.
1884, Dec. 8	SCOTT, THE HON. HENRY ROBERT	Belvoir Castle, Grantham, Lincolnshire.
1889, Feb. 11	SETH-SMITH, ARCHIBALD . . .	Silvermere, Cobham, Surrey.
1888, Apr. 30	SETH-SMITH, FREDERICK . . .	The Lodge, Upton Gray, Winchfield, Hants.
1893, Oct. 4	SETH-SMITH, HUGH GARDEN . .	{ Silvermere, Cobham, Surrey, and Native Lane Court, Wellington, New Zealand.
1886, Apl. 12	SHOPPEE, GERALD AUGUSTINE .	7, Furnival's Inn, E.C.
1879, Apr. 28	SLADEN, ST. BARBE	1, Delahay Street, S.W.
1884, Jan. 14	STATHAM, WILLIAM ARNOLD . .	12, King's Bench Walk, Temple.
1882, Jan. 16	STEPHENS, PEMBROKE S., Q.C. .	1, Plowden Buildings, Temple.
1886, May 3	STEVENS, WILLIAM RICHARD . .	11, St. Thomas's Street, S.E.
1875, Jan. 4	STRUTT, THE HON. FREDERICK	Milford House, Derby.
1877, Dec. 10	SUTTON, HENRY	Farrar's Building, Temple.
1891, Nov. 4	THOMAS, GEORGE JAMES . . .	London County Council, Spring Gardens, S.W.
1880, Dec. 13	THOMAS, HUBERT	Watford, Herts.
1891, Mar. 14	VEASEY, THOMAS FREDERICK . .	Bridge House, Huntingdon, Hunts.
1887, Jan. 10	VENNING, JOHN JAMES EDG- COMBE	{ Devonport.
1895, May 18	WARREN, REGINALD AUGUSTUS .	99, Great Russell Street, W.C.
1876, Nov. 27	WEBSTER, SIR RICHD. EVERARD, K.C.M.G., Q.C., M.P. (Associate of Council)	{ 2, Pump Court, Temple.
1884, May 26	WELLS, ALFRED DODD	Sotwell Hill, Wallingford, Berks.
1886, May 17	WHEELER, THOMAS WHITTEN- BURY, Q.C.	{ 1, King's Bench Walk, Temple.
1876, Dec. 18	WILL, JOHN SHIRESS, Q.C., M.P.	2, Garden Court, Temple.
1891, Nov. 4	WILLIAMS, THOMAS D.	{ Egremont, Battle Road, Ore, near Hastings, and Johannesburg.
1875, May 15	WINCKWORTH, LEWIS	31, Abingdon Street, S.W.
1870, Jan. 10	WING, THOMAS TWINING	Upper Hale, Farnham, Surrey.
1890, Nov. 22	WRIGHTSON, JOHN	College of Agriculture, Downton, Wilts.

Total number of Associates, 83.

Colonial Fellows.

Dip. No.	Date of Election			
2622	1893, Oct.	4	ANDERSON, CHARLES WILGESS	{ Government Land Department, Georgetown, Demerara, British Guiana.
2623	1893, Oct.	4	BOWEN, ERNEST FRANCIS SINDERBY	{ Public Works Department, Barbados, West Indies.
2641	1894, Feb.	23	CLARK, GAUIS	Park Street Post Office, Sydney, New South Wales.
2634	1893, Oct.	4	HENDERSON, JAMES ALLAN . .	Bairnsdale, Victoria, Australia.
2642	1894, Feb.	23	LIDDELL, WALTER COLIN . .	Kingston, Jamaica.
2643	1894, Feb.	23	MILLER, WILLIAM	Nassau, Bahamas, West Indies.

Total number of Colonial Fellows, 6.

Students.

*Passed
Preliminary
Examination.*

1894	ADAMS, ERNEST VICTOR . . .	Audley House, Brockley View, Forest Hill, S.E.
1893	ADAMS, HERBERT	43, Thornhill Road, Barnsbury N.
1895	ADDIE, JOHN HEATHCOTE . . .	Powis Castle Park, Welshpool.
1894	ADDISCOTT, HENRY HUGH . . .	18, St. Kilda's Road, Stoke Newington, N.
1895	AMBLER, SYDNEY WOOD . . .	10, Leighton Street, Woburn, Beds.
1894	ARNO, SAMUEL	68, Cawley Road, South Hackney, N.E.
1895	BADDELEY, BERNARD BERESFORD	Lakefield, Woodberry Down, Stamford Hill, N.
1894	BAINES, JOHN CECIL	31, Upper Tichbourne Street, Leicester.
1894	BANKS, HERBERT RICHARD . . .	Wellbrooke, Mayfield, Sussex.
1895	BANKS, JOHN	65, Nelson Street, Oxford Road, Manchester.
1895	BAVERSTOCK, HAROLD BRIDGE . .	Nightingale Road, Godalming, Surrey.
1895	BEDWELL, ERNEST CHARLES . .	13, Westbury Road, Brentwood.
1893	BERRY, THOMAS DARBY	{ 23, Bolingbroke Grove, Wandsworth Common, S.W.
1894	BICKFORD, JOSEPH GRANT . . .	5, Ilminster Gardens, Lavender Hill, S.W.
1895	BLUNT, MONTAGUE CECIL . . .	8, Westbourne Crescent, Hyde Park, W.
1895	BOWDEN, GEORGE	Woodbine House, Westloughton, Lancs.

*Passed
Preliminary
Examination.*

STUDENTS.

1895	BOWDEN, HARRY	3, Gloucester Villas, Newport, Barnstaple.
1895	BRACKETT, WILLIAM NEWBEGIN	Orsett, Essex.
1894	BRADWELL, GERVASE HULBERT .	Pelham Terrace, The Park, Nottingham.
1893	BURGESS, HENRY HERBERT PHILIP,	12, Oppidans Road, Regent's Park, N.W.
1895	BURROWS, FRANK HERBERT . .	Elwick House, Bank Street, Ashford, Kent.
1895	CASTLE, THOMAS AMELIUS MAR- RIOTT	} 89, Haicourt Terrace, South Kensington, S.W.
1894	CHADWICK, SPENCER DYSON . .	
1895	CHART, CHRISTOPHER	Highfield, Shoreham, Sevenoaks.
1895	CHERTERTON, FRANK SIDNEY .	The Limes, Mitcham, Surrey.
1895	CHESTERTON, FRANK SIDNEY .	31, Pembroke Road, Kensington, W.
1895	CLARKE, CHARLES WENTWORTH .	1, Park Place, Leeds.
1893	CLARKE, JOHN WILLIAM	38, George Street, Croydon.
1895	CLARKSON, WILLIAM	136, High Street, Poplar, E.
1894	COLBOURNE, ROBERT BERTRAM .	91, Trent Villas, Lichfield.
1893	COLE, RICHARD ERNEST	4, St. Margaret's Bank, Rochester, Kent.
1895	COLLINS, HORACE	Suffield House, High Wycombe, Bucks.
1893	COWELL, WILFRED LEE	32, Crouch Street, Banbury, Oxfordshire.
1893	COWIN, NORRIS TYNWALD . . .	23, Bernard Street, Russell Square, W.C.
1892	COWPER, WILLIAM SHAPLAND .	Gortamore, Tunstall, Sittingbourne.
1895	COX, GEORGE FREDERICK	Sunnyside, College Road, Maidstone, Kent.
1894	COX, WALTER THEODORE	22, Stone Street, Maidstone, Kent.
1895	CROWTHER, CYRIL	Strawberry Hill, Haulgh, Bolton, Lancashire.
1895	DANIEL, HENRY IVIE HERBERT HOOD	} Royal Agricultural College, Cirencester.
1894	DANIEL, HENRY WILKINSON . .	
1892	DAVIES, WALTER JACKSON . . .	The Firs, Ashby Road, Burton-on-Trent.
1892	DEER, EDWARD AUBREY	Excelsior House, Wylde Green, near Birmingham.
1893	DEER, EDWARD AUBREY	26, High Street, Stratford-on-Avon.
1893	DICKSON, FRANCIS HERBERT . .	24, West Cliff, Preston, Lancashire.
1894	DREW, WALTER HUBERT	{ Grove Cottage, Cookham Dean, Maidenhead, Berks.
1894	DRIFFIELD, THOMAS HENRY . .	
1895	DUNNINGHAM, THOS. FREDERIC .	Beech Mount, Harlow Road, Harrogate.
1895	DUNNINGHAM, THOS. FREDERIC .	38, East Hill, Colchester, Essex.
1894	ELLIS, LOUIS BOISSEVAIN . . .	Falcon Court, 32, Fleet Street, E.C.
1893	EVANS, ERNEST SYDNEY	Abbotsford, Ealing, W.
1895	EVANS, FRANKLIN BOUCHER . .	The Elms, Buckland Road, Maidstone, Kent.
1894	FAIR, ARTHUR EDWARD	The Nook, Lytham, Lancashire.
1895	FIELD, CHARLES ROLAND	211, Anerley Road, Anerley, S.E.
1895	FIELDER, EDWARD CHRISTOPHER	Milbourne, Malmesbury, Wilts.

*Passed
Preliminary
Examination.*

STUDENTS.

1895	FITCH, ARTHUR LLEWELLYN . .	Denmark House, Erleigh Road, Reading.
1895	FLOWER, PHILIP ARTHUR . . .	2, Shirburn Villas, High Wycombe, Bucks.
1893	FOSTER, EDWARD CHARLES . .	54, Pall Mall, S.W.
1895	FOULKES, NOEL MACINTYRE . .	Grove Lodge, Tring, Herts.
1894	FUNNELL, HORACE FREDERICK .	25, Crofton Road, Peckham Road, Camberwell, S.E.
1894	GALE, ARTHUR WITHERBY . . .	7, Ranelagh Road, Winchester, Hants.
1895	GAYER, ALFRED EDWARD . . .	St. Matthew's Vicarage, Bristol.
1894	GOADBY, HOWARD	Sidmouth House, London Road, Reading.
1895	GOLDSMITH, DOUGLAS FLEET . .	Blendworth, Horndean, Hants.
1895	GOMM, HERBERT GEORGE . . .	Rutland House, The Butts, Brentford.
1895	GOODCHILD, CHARLES SAMUEL .	Great Yeldham Hall, Halstead, Essex.
1895	GOODBEHERE, HAROLD	Willow Bank, Longsight, Manchester.
1895	GRAHAM, GEO. ERNEST HOWGRAVE	12, Willow Road, Hampstead, N.W.
1895	GRAY, HORACE NORMAN	{ Newlyn House, 131, Earlam Grove, Forest Gate, E.
1893	GREEN, ARTHUR EDWARD . . .	Hilldene, Luton, Bedfordshire.
1895	GRIPPER, JOSEPH EDWARD . . .	45, East Street, Chichester.
1893	GROVE, ALBERT	Parkfield Villa, Stourbridge.
1893	GROVE, RICHARD THOMAS . . .	12, Melbourne Square, Brixton, S.W.
1895	HAWKINS, JOHN FREDERICK . .	6, Ravensbourne Road, Bromley, Kent.
1895	HEAL, HAROLD	Amédée, Crouch End, N.
1894	HICKMAN, ARTHUR MURHALL . .	Seaton Lodge, Shrewsbury.
1894	HOLDEN, ORTON	64, Cross Street, Manchester.
1895	HOOD, THOMAS, JUN.	Bog End, Duns, N.B.
1893	HOOPER, EDGAR WILFRED . . .	Tolbury, Bruton, Somerset.
1893	HOWLAND, ARTHUR FRANK . . .	Rushymead, Coleshill, Amersham, Bucks.
1893	HUSKINSON, ERNEST AMPHLETT	Epperstone Manor, Nottingham.
1894	HYAM, LIONEL ALFRED	35, Tavistock Square, W.C.
1894	HYAM, WILLIAM PERCY	35, Tavistock Square, W.C.
1894	JACKSON, FREDERIC ARTHUR . .	Mayfield, Leigh, near Manchester.
1895	JACKSON, ROBERT EVAN	Hall, Gowan, Carnforth, Lancs.
1892	JEBOULT, DOUGLAS HAROLD . .	6, Upper Cheyne Row, Chelsea, S.W.
1894	JOHN, HENRY BELL	6, Llanbleddian Gardens, Cardiff.
1895	JONES, LAWRENCE EVERARD . . .	153, Highbury New Park, N.
1894	JONES, LEONARD REGINALD . .	Glenfern, North Finchley, N.
1895	JOSEPH, CHARLES BENJAMIN . .	5, Romford Road, Stratford, E.

*Passed
Preliminary
Examination.*

STUDENTS.

1894	KAYE, HERBERT	Queen's Road, Edgerton, Huddersfield.
1894	KERR, JOHN MURRAY	Summerfield Park, Llanidloes.
1895	KEY, ASTLEY COOPER	30, Wilton Place, Belgrave Square, S.W.
1894	KIBBLEWHITE, HENRY JAMES } TRELEAVEN }	Barn House, Watlington, Oxon.
1894	KINGSFORD, PERCY HAMILTON .	Littlebourne, near Dover, Kent.
1893	KIRBY, EDMUND FRANCIS JOSEPH	21, Leigh Street, Liverpool.
1895	LAIRD, NINIAN P.	Kirby Muxloe, near Leicester,
1894	LAKE, CUTHBERT JOSEPH . . .	Heage House, Crouch Hill, N.
1895	LANG, CHARLES FREDERICK } DASHWOOD }	3, King Street, Cheapside, E.C.
1892	LEANE, WALTER BURDITT . . .	6, Garth Terrace, Bangor, North Wales.
1894	LEE, HENRY	Carlton Terrace, Mill Hill Road, Norwich.
1893	LITTLE, ALFRED STUART . . .	Stuart House, Cambridge Park, Twickenham.
1893	LOFTS, ALGERNON KNIGHT . . .	Oakmere, Potter's Bar, Middlesex.
1893	LORDEN, LEONARD WM. CRANDALL,	Highlands, Hythe, Kent.
1895	MADGE, CHARLES ALBERT . . .	Ivy House, St. Alban's, Herts.
1894	MALLINSON, CHARLES HERBERT	50, Newhouse, Huddersfield, Yorkshire.
1895	MARCUS, WILLIAM MORTIMER . .	20, Strathblaine Road, New Wandsworth, S.W.
1893	MARSHALL, ARTHUR GEORGE . .	The Oaks, Alleyn Park, West Dulwich, S.E.
1894	MARTIN, HERBERT	Theydon Lodge, Theydon, Essex.
1893	MARTIN, STANLEY ARTHUR . . .	19, High Street, Chelmsford, Essex.
1894	MATHEWS, ROBERT ST. JOHN . .	21, Augustus Road, Edgbaston, Birmingham.
1893	MILLER, JOHN	Woodplumpton House, near Preston, Lancashire.
1895	MILLWARD, JAMES	12, Albemarle Street, Clerkenwell, E.C.
1894	MITCHESON, HARRY	Carlisle Street, Dresden, Stoke-on-Trent.
1894	MOLYNEUX, FRANK EUSTACE . .	72, Lansdowne Road, Croydon.
1894	MORTIMORE, CLAUDE ALICK . . .	Alnwick House, Catford Bridge, S.E.
1895	NEWMAN, HENRY ARTHUR . . .	Ashley Road, Parkstone, R.S.O., Dorset.
1893	OLDMAN, MONTAGUE CHARLES . .	The Grange, Bletchingley, Surrey.
1894	OLIVERI, FELIX	54, Gloucester Crescent, Regent's Park, N.W.
1893	OVERELL, PERCY WILLIAM . . .	Codicote Bury, Welwyn, Herts.
1895	PAICE, WILLIAM	Hartland House, Woolacombe, N. Devon.
1893	PEARCE, CHARLES FREDERICK . .	78, Blenheim Gardens, Willesden Green, N.W.
1893	PEARSE, OCTAVIUS BURROUGHS	Weeford Lodge, Erdington, near Birmingham.
1895	PEARSE, THOMAS WILLIAM . . .	Stoliford, Modbury, Devon.

*Passed
Preliminary
Examination.*

STUDENTS.

1894	PHILLIPS-SANDERS, CHARLES .	{ Engineer's and Surveyor's Office, Council Build- ings, Acton, W.
1895	PHIPPS, FREDERICK REGINALD .	64, High Street, Tewkesbury.
1895	PINEGER, JAMES REGINALD . .	Newbury, Berks.
1895	PINFOLD, FRANCIS ARTHUR . .	125, Oxford Street, Rugby.
1894	PRIOR, HENRY	{ Sandown Cottage, 14, Gledholt Road, Hudders- field.
1895	PROTHEROE, WILLIAM SUDBURY	Bowen House, Leytonstone, Essex.
1895	RATCLIFFE, WILLIAM HODGSON	Cliffe House, Accrington, Lanes.
1895	REEVE, DOUGLAS WILLIAM . .	St. Moritz, Camborne Road, Sutton, Surrey.
1894	RICHARDSON, JAMES	13, Barn Hill, Stamford, Lincolnshire.
1894	RICKARDS, ROBERT HILLIER TRAHERNE ANSON	{ Charles Street Chambers, Cardiff.
1895	ROBINSON, JOHN BROOKE WOOD	Woolton Hill, Newbury, Berks.
1895	ROBINSON, RALPH ETESON . .	29, Beacon Hill, Camden Road, N.
1893	ROME, ARTHUR ERNEST . . .	Rugeley, Staffordshire.
1893	ROOK, JOSEPH TAYLOR	23, Spencer Street, Carlisle.
1894	SCOBLE, HERBERT THOMAS . .	Maverstone Lodge, College Park, Lewisham, S.E.
1892	SEDGWICK, ALFRED SYDNEY EDW.	195, Tulse Hill, S.W.
1895	SHELDON, HAROLD	Kinderton Street, Middlewich.
1895	SHEPPARD, PERCIVAL CLIFFORD OSBORNE	{ Glyn Clydach, Neath, South Wales.
1895	SHORNEY, ARTHUR SHEPHERD .	63, Queen's Road, Reading.
1894	SIMMONS, JAMES EDWARD . .	7, Victoria Road, Leicester.
1895	SIMPSON, LESLIE SHEPHERD .	Blenheim, Bishopwood Road, Highgate, N.
1894	SLY, WILLIAM	6, West Road, Lancaster.
1893	SMITH, ARTHUR PLUMBE . . .	Estate Office, Puddletown, Dorset.
1893	SMITH, HENRY	Ashgrove, Low Utley, Keighley, Yorks.
1893	SOUTHORNE, CHARLES HERBERT	38, The Parade, Leamington.
1895	STACEY, FREDK. CHAS. WEBSTER	6, Callow Street, South Kensington, S.W.
1895	STALLARD, HAROLD ORLANDO .	Heath Vicarage, Leighton Buzzard.
1895	STIMSON, HERBERT PERCY . .	340, Brixton Road, S.W.
1894	STOKES, HUGH CHARLES . . .	40, Upper Baker Street, W.
1894	STRAKER, HOWARD	2, Branksome Terrace, Bournemouth, Hants.
1895	STRATTON, CLEMENT MARRIAN .	{ Park House, 247, Monument Road, Edgbaston, Birmingham.
1895	STRINGER, RALPH NOVERRAY .	Sherfordville, Taunton, Somerset.
1895	SUTTON, FREDERICK STANLEY .	Willow Cottage, 133, Brixton Hill, S.W.

*Passed
Preliminary
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STUDENTS.

1895	TATE, JOSEPH GEORGE . . .	The Mount, Penshurst Park, Tonbridge, Kent.
1894	TOLLER, HENRY JAMES . . .	St. Helens, Henley-on-Thames.
1895	TOMKINS, WALTER HENRY . . .	1, Havelock Road, Croydon.
1894	TOWN, HENRY ANANDALE . . .	East Witton, Middleham, Yorks.
1894	TOWSE, JOHN STANLEY . . .	Hillside, Ravensbourne Park, Catford, S.E.
1894	TREGELLES, JOHN ALLEN, JUN.	9, Priory Street, Monmouth.
1894	TURNER, GEORGE JOHN . . .	Mansfield Woodhouse, Nottinghamshire.
1895	TURNER, REALF LOVETT . . .	Market Harborough, Leicestershire.
1892	WALKER, WILLIAM SELVES . . .	22, Moorgate Street, E.C.
1894	WALTON, EDGAR THOMAS . . .	1, Crowhurst Road, Brixton, S.W.
1893	WARD, FRANK EDWARD . . .	Rushmore, St. Cuthbert Street, Bedford.
1892	WATSON, HERBERT JOHN . . .	Estate Office, Haigh Hall, Wigan, Lanes.
1895	WEALL, JOHN GRAHAM . . .	Rutland Lodge, Watford, Herts.
1895	WEAVER, HENRY PERCIVAL } FRANCIS }	Pedmore, near Stourbridge.
1894	WHEATLEY, STEPHEN GLADSTONE	263, Strand, W.C.
1895	WHESTON, WRAY WILKINS . . .	Manor Farm, Thames Ditton.
1895	WHITBY, TIMOTHY ALBERT . . .	31, Beacon Hill, Camden Road, N.
1894	WHITE, HENRY ERNEST . . .	Dunston Hall, Whickham, Durham.
1893	WHITE, WILLIAM, JUN. . . .	Dunston Hill, Whickham, Newcastle-upon-Tyne.
1895	WHITTON, PERCY	25, Osborne Road, Forest Gate, E.
1892	WILDE, SIDNEY ALGERNON . . .	29, Fleet Street, E.C.
1894	WILKINSON, FRANK	168, North Street, Brighton.
1894	WILKINSON, PERCY NEWTON . . .	3, St. Mark's Square, Regent's Park, N.W.
1895	WILLOUGHBY, CHAS. ALBERT . . .	28, Friends Road, Croydon.
1895	WILSON, GEORGE FREDERICK . . .	243, Romford Road, Forest Gate, E.
1893	WILSON, JOHN	60, New Street, Chelmsford, Essex.
1895	WILTON, JAMES PERCY	133, Hartington Road, Sefton Park, Liverpool.
1894	WOOD, JOHN EDWARD	{ 103, Bolingbroke Grove, Wandsworth Common S.W.
1895	WOOD, ROBERT	{ Ewhurst, Routh Road, Wandsworth Common S.W.
1895	WOODS, HY. EDWARD ANZANI . .	Lancaster Lodge, Sidcup, Kent.
1894	WOOLDRIDGE, HENRY WALTER . .	20, High Street, Fareham, Hants.
1895	WYATT, HERBERT GUY BUCKELL .	St. John's Street, Chichester.

Total number of Students, 185.

SUMMARY.

Honorary Members	.	.	.	.	.	.	16
Fellows	.	.	.	.	.	.	1,612
Professional Associates	.	.	.	.	.	.	436
Associates	.	.	.	.	.	.	83
Colonial Fellows	.	.	.	.	.	.	6
Students	.	.	.	.	.	.	185
Total	.	.	.	.	.	.	<u>2,338</u>

NOTE.—To ensure the regular transmission of the Papers and Notices, it is particularly requested that any changes of address be communicated at once to the Secretary.

Members of the Institution who have Passed the Fellowship Examination.

1893 ABRAMS, BENJAMIN PERCY.	1893 BUCKLAND, SIDNEY CRAWFORD.
1888 ADKIN, BENAIAM WHITLEY (<i>Special Sanitary Science Certificate</i> , 1893).	1887 BURROWS, ALFRED JOHN.
1893 AMOS, FRANK (<i>Crawter Prize</i> , 1893).	1891 BUSHELL, HENRY.
1892 ANSCOMBE, ERNEST.	1895 *CARR, THOMAS EDMUND.
1895 *ARIS, JOHN WHITTON.	1892 CASTLE, HAROLD.
1894 *ARNOTT, JOHN.	1895 *CHAMBERS, THEODORE GERVASE (<i>Penfold Gold Medal</i> , 1895).
1887 AUSTIN, RICHARD, JUN.	1894 COALES, HERBERT GEORGE.
1891 *AYLEN, CECIL HUGH.	1893 COBHAM, GEORGE WILLIAM.
1895 *BAILEY, LEWIS HEWITT.	1895 *COOPER, ALFRED WILLIAM.
1891 BALL, WILLIAM ALFRED.	1894 COPE, HENRY JAMES.
1893 BANCROFT, FREDERICK HERBERT.	1892 CORDEROX, ATHELSTANE.
1895 *BANNISTER, TOM HARRISON CAFFYN.	1893 *CRIER, JOHN THOMAS.
1891 BARNES, GEORGE FREDERICK.	1895 *CROSS, ARNOLD CHARLES MARTIN.
1893 *BEADEL, FREDERICK MAURICE.	1890 DARCH, JOHN.
1889 BEARD, EDWIN THOMAS.	1892 DAVEY, HENRY THOMAS.
1884 BEDELLS, CHARLES HERBERT.	1895 *DAVIES, CYRIL FROODVALE (<i>Crawter Prize</i> , 1895).
1895 *BELCHER, EDWARD JOHN.	1894 DAVIES, DAVID THOMAS.
1893 BELLINGHAM, ARCHIBALD TURNER.	1886 DAY, WILLIAM, JUN.
1888 BENSON, ROBERT ALAN.	1893 DEBENHAM, FRANK BRIDGEWATER.
1893 BEVEN, SEPTIMUS.	1894 *DEBENHAM, FREDERIC KERSEY.
1894 *BIDWELL, JOHN EVANS.	1893 DEBENHAM, HORACE BENTLEY.
1894 BIRCH, RICHARD ELWYN.	1890 DENDY, WILLIAM COOPER.
1889 BIRCH, WALTER DE HOGHTON.	1885 DICKSON, THOMAS ARTHUR.
1893 BLACKBOURN, HENRY.	1891 DONE, JOHN JAMES.
1893 BODY, ARTHUR.	1888 DREW, HENRY ALBAN.
1895 *BOOTH, GILBERT WILLIAM.	1892 DUDLEY, EDGAR.
1891 BOULTING, FREDERICK EDWARD.	1891 EAGLAND, WILLIAM FRANCIS.
1892 BRACKETT, FREDERICK HENRY.	1895 *EASON, EDWARD WILLIAM.
1895 *BRADLEY, JAMES WILLIAM.	1894 *EDMONDS, JOHN.
1895 *BRADSHAW, HARRY GREAVES.	1895 *ELLIS, ALBERT EDWARD.
1893 BRADY, RALPH HOLLINSHELD.	1889 ELLIS, FRANCIS, JUN.
1894 *BRINKWORTH, ROBERT EDWIN.	1890 ELLIS, HERBERT MOATES.
1893 BROWN, ALEXANDER BURNETT.	1890 ELLIS, RALPH STAPLES.
1893 BROWN, ARTHUR MACDONALD.	1887 EYE, HERBERT TRUSTRAM.
1894 *BROWN, GEORGE TURVILLE.	1895 *EVES, FRANCIS GEORGE BERTRAM.
1887 BUCKLAND, ALFRED VIRGOE.	1890 EVES, WILLIAM LIONEL.

Members of the Institution who have Passed the Fellowship Examination.—continued.

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| 1894 *FINN, FRED. | 1894 *JEFFREE, SYDNEY. |
| 1894 FINN, HERBERT ARCHIBALD. | 1895 *JENKINSON, JOHN. |
| 1894 *FITT, HARRY CHARLES. | 1894 *JOHNSON, BERNARD MARR. |
| 1895 FORD, SOLOMON. | 1884 JOHNSON, HENRY. |
| 1890 FOSTER, FRANK (<i>Special Sanitary Science Certificate</i> , 1892). | 1894 JOHNSTON, WALTER HENRY. |
| 1894 *FOSTER, JAMES HERBERT FURM-
EDGE. | 1889 JONAS, HARRY MARSHALL. |
| 1893 FRANKLIN, BENJAMIN BELGROVE. | 1890 JONES, FREDERICK HERBERT. |
| 1894 FRASER, WILLIAM. | 1886 JONES, HENRY ARTHUR (<i>Special Sanitary Science Certificate</i> , 1892). |
| 1894 GARDNER, GILBERT. | 1892 KEMP-SMITH, JAMES FREDERICK. |
| 1892 *GARRARD, ARTHUR NORMAN. | 1888 KING, ALFRED. |
| 1895 *GERMAN, GEORGE, JUN. | 1889 LAMBERT, GODFREY CHARLES. |
| 1887 GIBB, WILLIAM PASHLEY. | 1895 *LANCASTER, JOHN ROY. |
| 1892 GIDDY, OSMAN HORTON. | 1893 *LAWLEY, FREDERICK WILLIAM. |
| 1893 GODDARD, ALEXANDER. | 1893 LEANING, HENRY JOHN. |
| 1886 GODFREY, ROBERT. | 1895 *LEANING, WILLIAM ARTHUR. |
| 1892 GREEN, ALEXANDER ERNEST. | 1894 LEATHER, GEORGE HERBERT. |
| 1892 GROGAN, HEDWORTH HERBERT. | 1893 LEE, JOHN WILFRID. |
| 1892 GROVER, ARTHUR. | 1895 *LONGSDON, ERNEST MOREWOOD. |
| 1895 *GROVER, PHILIP GORDON. | 1895 *MCCARTHY, HENRY ROBERT |
| 1891 HADLEY, FRANK. | 1895 *MADDOX, HARRY EDWARD. |
| 1894 *HAIGH, THOMAS FREDERICK. | 1891 MANN, ROBERT BAGSHAW. |
| 1891 HALL, WILLIAM TIMOTHY. | 1895 *MARTIN, HERBER GAMBLING. |
| 1894 *HAMPTON, GEORGE FREDERICK
WILLIAM. | 1895 *MARTIN, SAMUEL. |
| 1888 HANSELL, REGINALD GODDARD
(<i>Special Sanitary Science Certi-
ficate</i> , 1893). | 1892 MARTIN, THOMAS (<i>Special Forestry
Certificate</i> , 1893). |
| 1890 HASLAM, DRYLAND, JUN. | 1888 MASSIE, FRANK. |
| 1886 HASLUCK, LANCELOT GERALD. | 1895 *MATHEWS, LOUIS OSLER. |
| 1892 HAYWARD, FREDERICK GEORGE. | 1889 MAXWELL, FRANCIS WILLIAM. |
| 1891 HEAD, JOHN GEORGE (<i>Crawter Prize</i> ,
1891). | 1893 MELLENFIELD, JAMES HENRY. |
| 1895 *HEWARD, ERNEST JAMES. | 1890 *MELROSE, FRANK (<i>Special Sanitary
Science Certificate</i> , 1893). |
| 1891 HIGGINS, GEORGE. | 1892 MERRY, ARTHUR WALKER. |
| 1889 HODGE, LEONARD PERCIVAL. | 1894 MESSENGER, HENRY. |
| 1895 *HOLIDAY, PERCY CAVE. | 1884 MICHELMORE, ALFRED (<i>Special
Forestry Certificate</i> , 1890). |
| 1895 *HOOPER, CECIL HENRY. | 1892 MITCHELL, GEORGE SHARMAN. |
| 1883 HORNE, WILLIAM EDGAR. | 1884 MIXER, EDWARD. |
| 1895 *JARMAN, FRANK WILMOTT. | 1885. MOORE, HAROLD EDWARD. |
| | 1894 MORRIS, RICHARD PERCIVAL. |

Members of the Institution who have Passed the Fellowship Examination.—continued.

1891 MOULD, GRAHAM HARLEY.	1884 ROLLESTON, WILLIAM GUSTAVUS STANHOPE.
1892 MULLER, JOHN JOSEPH.	1894 RONEY-DOUGAL, JOHN DOUGAL.
1894 NEWMAN, SAMUEL FRANK.	1887 ROODS, ALFRED.
1895 *NOCKOLDS, MARTIN CHARLES HUBERT.	1889 RUNDLE, EDWARD COLLINS.
1895 *NORMAN, JAMES NOEL.	1889 SADLER, GEORGE WILLIAM, JUN.
1883 NORTH, GEORGE FREDERIC.	1891 SAUNDERS, CHARLES HERBERT.
1894 OAKLEY, CHRISTOPHER PERCIVAL.	1892 SAVILL, EDWIN.
1891 OAKLEY, JOHN HUBERT.	1894 SCRUBY, WILLIAM THOMAS.
1892 OGDEN, MICHAEL GUY.	1883 SILCOCK, THOMAS BALL.
1892 OSENTON, GEORGE, JUN.	1892 SLATER, CHARLES FREDERICK.
1895 *PAIN, GEORGE LLOYD.	1895 *SMITH, FRANK BRAYBROOKE.
1885 PAIN, JAMES.	1889 SMITH, FRANK WILLIAM.
1892 PALAMOUNTAIN, JOSEPH WM.	1884 SMITH, WILLIAM.
1891 PARRIS, CHARLES JOHN.	1894 *SQUIRE, GERALD ROBERT.
1887 PARRY, RICHARD.	1894 STAPLEDON, ERNEST ALLEN.
1894 PARTRIDGE, EDWARD JOHN (<i>Penfold Gold Medal, 1894, and Cawter Prize, 1894</i>).	1895 *TAYLOR, HARRY WILLIAM.
1886 PAULL, ALAN.	1894 *TEE, SAMUEL CLIFFORD.
1895 *PEARSON, HOWARD.	1894 TEMPLE, FREDERICK WILSON.
1891 PERKINS, WALTER FRANK.	1895 *THRING, DOUGLAS THEODORE.
1884 PETO, JAMES WINDER.	1887 TIFFEN, JOHN HENRY.
1885 PILDITCH, PHILIP EDWARD (<i>Special Sanitary Science Certificate, 1890</i>).	1893 *TORY, JOHN EDWARD, JUN.
1894 POTTER, HERBERT GEORGE.	1885 TREADWELL, HENRY JOHN.
1895 *POWELL, CHARLES REGINALD EVERNDEN.	1893 *TUCKETT, PERCIVAL FOX.
1895 *PRALL, HERBERT EDWARD.	1883 TYLER, JAMES WILLIAM.
1892 PRESTON, SAMUEL DAVID.	1889 VERNON, ARTHUR.
1894 *PRICE, RICHARD ARNOLD.	1892 WALKER, JOSEPH ARTHUR.
1891 PUNCHARD, FREDERICK BURT.	1895 *WATSON, JAMES BRUCE.
1892 RICHARDSON, OLIVER ARCHER (<i>Cawter Prize, 1892</i>).	1894 WATSON, JOHN, JUN.
1894 *ROBINS, PHILIP SEYMOUR.	1892 *WEBSTER, HUGH CALTHROP.
1893 ROBINSON, HENRY HERBERT.	1895 *WELLS, WILLIAM HENRY.
	1895 *WEST, CHARLES HENRY EDWARD.
	1894 *WILLIS, EDWARD.
	1891 WOOD, CHARLES BRUCE.
	1895 *WOODS, ARTHUR GEORGE.
	1895 *WYLES, JOHN WALTER.
	1892 YOUNG, HARRY AUSTIN LINDSAY.

* Those to whose names a star is affixed, have passed the Fellowship Examination, but have not yet been transferred to the Class.

Members of the Institution who have Passed the Professional Associateship Examination.†

1891 ABRAMS, BENJAMIN PERCY.	1884 BENSON, ROBERT ALAN (<i>Bracketted Special Prize, 1884</i>).
1894 ADAMS, GERALD JAS. FREDERICK.	1892 BEVEN, SEPTIMUS.
1887 ADKIN, BENALIAH WHITLEY.	1893 BIDWELL, JOHN EVANS.
1893 ALLEN, JOHN PARNELL.	1893 BIRCH, RICHARD ELWYN.
1892 AMOS, FRANK.	1884 BIRCH, WALTER DE HOGHTON.
1893 ANDREWS, WALTER ELY.	1886 BIRKETT, TOM.
1887 ANSCOMBE, ERNEST.	1885 BLUNDELL, HARRY.
1890 ARMYTAGE, FRANCIS REGINALD.	1893 BODGER, PERCY MORRIS.
1885 ARNOTT, JOHN (<i>Special Prize, 1885</i>).	1890 BODY, ARTHUR.
1894 ARIS, JOHN WHITTON.	1887 BOOTH, GILBERT WILLIAM.
1889 ASSITER, HARRY G. (<i>Special Sanitary Science Certificate, 1892</i>).	1890 BOULTING, FREDERICK EDWARD.
1894 ASTLEY, REGINALD BASIL.	1886 BOUSFIELD, EDWIN VAUGHAN DAVENPORT.
1887 AUSTIN, RICHARD, JUN.	1891 BOWDEN, ERNEST NEWTON.
1890 AYLEN, CECIL HUGH.	1891 BOWDEN, JOHN FRIENDSHIP (<i>Institution Prize, 1891</i>).
1893 BAILEY, LOUIS HEWITT.	1888 BOWER, ARTHUR WENTWORTH CHIVERS.
1885 BAKER, CECIL CAUTLEY.	1890 BRACKETT, FREDERICK HENRY.
1888 BALL, JAMES BENJAMIN.	1894 BRADLEY, JAMES WILLIAM.
1889 BALL, WILLIAM ALFRED.	1893 BRADSHAW, HARRY GREAVES.
1890 BANCROFT, FREDERICK HERBERT.	1888 BRADY, RALPH HOLLINSHED.
1893 BANNISTER, TOM HARRISON CAFFYN.	1888 BREVETOR, THOMAS, JUN.
1890 BARCLAY, THOMAS.	1889 BRIDGFORD, LEO APPLETON.
1892 BARKER, GEOFFREY LIONEL.	1886 BRIGGS, JOHN
1889 BARNES, GEORGE FREDERICK.	1894 BRINSLEY, HERBERT GEORGE WILLIAM.
1884 BARRATT, HARRY.	1892 BRINKWORTH, ROBERT EDWIN.
1887 BATEMAN, ARTHUR CHARLES.	1891 BROWN, ALEXANDER BURNETT.
1890 BEADEL, MAURICE FREDERICK.	1889 BROWN, ARTHUR MACDONALD (<i>Driver Prize, 1889</i>).
1885 BEARD, EDWIN THOMAS.	1892 BROWN, GEORGE TURVILLE.
1891 BEASLEY, JOHN ARTHUR LEWELLYN (<i>Driver Prize, 1891</i>).	1887 BROWN, WILLIAM EDWARD.
1883 BEDELLS, CHARLES HERBERT.	1893 BROWN, WILLIAM LOBIN TRANT.
1894 BEKEN, GEORGE, JUN.	
1888 BELCHER, EDWARD JOHN.	
1894 BELL, HERBERT OWEN.	
1889 BELLINGHAM, ARCHIBALD TURNER.	

† This list does not include the names of those who have passed the Examination but have not yet joined the Institution.

Members who have Passed the Professional Associateship Examination—continued.

1894	BRUCE, ALEXANDER DAVID.	1894	CROSIER, CHARLES.
1885	BUCKLAND, ALFRED VIRGOE.	1886	CROSLAND, WALTER.
1891	BUCKLAND, SIDNEY CRAWFORD.	1891	CROSS, ARNOLD CHARLES MARTIN.
1888	BULBECK, GEORGE.	1888	CROUCH, JAMES LEONARD.
1892	BURDER, REGINALD EDWARD CAMPBELL.	1893	DARBISHIRE, HARRY VERNON.
1886	BURROWS, ALFRED JOHN.	1889	DARCH, JOHN.
1887	BUSHELL, HENRY.	1888	DAVEY, HENRY THOMAS.
1887	BUSS, FLEETWOOD GEORGE WILLIAM.	1893	DAVID, GEORGE WILLOUGHBY.
1894	BUTLER, ALBERT ERNEST.	1893	DAVIES, CYRIL FROODVALE.
1894	CAMBRIDGE, WILLIAM JAMES.	1892	DAVIES, DAVID THOMAS.
1886	CAMPBELL, COLIN.	1891	DAVIS, NEVILLE BROOKES.
1891	CARR, THOMAS EDMUND.	1883	DAY, WILLIAM, JUN.
1894	CARNELL, SYDNEY GEORGE.	1892	DEBENHAM, FRANK BRIDGEWATER.
1887	CARTER, ALFRED PRESLEY.	1893	DEBENHAM, FREDERIC KERSEY.
1891	CASTLE, HAROLD.	1891	DEBENHAM, HORACE BENTLEY.
1894	CHAMBERS, THEODORE GERVASE.	1893	DELAMARE, FRANK.
1893	CHAMPION, GEORGE ERNEST.	1889	DENDY, WILLIAM COOPER (<i>Special Prize</i> , 1889).
1888	CHALCRAFT, HENRY TERRELL.	1884	DICKSON, THOMAS ARTHUR.
1888	CHENEY, EDWIN JOHN.	1894	DINWIDDY, DONALD.
1892	CHILD, CHARLES.	1888	DIXON, FRANCIS EDWARD (<i>Special Prize</i> , 1888).
1888	CHILD, EDMUND HERBERT.	1887	DONE, JOHN JAMES (<i>Driver Prize</i> , 1887).
1885	COALES, HERBERT GEORGE.	1886	DREW, HENRY ALBAN.
1890	COBHAM, GEORGE WILLIAM (<i>Special Prize</i> , 1890; <i>Crawter Prize</i> , 1890).	1892	DRUCE, EDRIC.
1889	COLBOURN, HENRY JAMES (<i>Special Forestry Certificate</i> , 1890).	1889	DUDLEY, EDGAR.
1887	COLLINGHAM, J. CYRIL LEES.	1888	EAGLAND, WILLIAM FRANCIS.
1885	COLLINS, MARCUS E.	1893	EASON, EDWARD WILLIAM (<i>Institution Prize</i> , 1893).
1888	COLLYER, DANIEL WILLIAM.	1893	EASTON, WALTER JOHN (<i>Driver Prize</i> , 1893).
1892	COOKE, LIONEL.	1893	EDMONDS, JOHN.
1893	COOPER, ALFRED WILLIAM.	1893	ELGAR, WALTER ROBINSON.
1890	COPE, HENRY JAMES.	1890	ELGOOD, FRANK MINSHULL.
1891	CORDEROY, ATHEISTANE.	1892	ELLIS, ALBERT EDWARD.
1893	COX, REGINALD JOHN.	1890	ELLIS, FRANCIS, JUN.
1883	CRAWTER, JOHN, JUN.	1888	ELLIS, HERBERT MOATES.
1894	CREGEEN, HUGH STOWELL, JUN.	1887	ELLIS, RALPH STAPLES.
1891	CRIER, JOHN THOMAS.	1894	EVE, CHARLES GERALD.
1892	CROOKES, CHARLES REGINALD.	1887	EVE, HERBERT TRUSTAM.

Members who have Passed the Professional Associateship Examination—continued

1892	EVERED, GILLIEBRAND EDWIN.	1893	GREEN, FREDERICK ALGERNON.
1892	EVERETT, ARTHUR SHERMAN.	1887	GREEN, THOMAS JOHN.
1894	EVERINGTON, JOHN.	1886	GREEN, THOMAS JOSEPH.
1894	EVES, FRANCIS GEORGE BERTRAM.	1884	GREENOP, EDWARD.
1888	EVES, WILLIAM LIONEL.	1894	GRIFFIN, ALFRED.
1894	FAGG, EDWIN WILLIAM.	1892	GRIGGS, HENRY JENNER.
1894	FINCH, CLEMENT ROBERT.	1888	GRIMES, RALPH FEARON.
1892	FINN, FRED.	1890	GROGAN, HEDWORTH HERBERT.
1891	FINN, HERBERT ARCHIBALD (<i>Special Prize, 1891</i>).	1889	GROVER, ARTHUR.
1893	FITT, HARRY CHARLES.	1894	GROVER, PHILIP GORDON.
1893	FLETCHER, HERBERT PHILIPS.	1888	GUNTER, JAMES.
1892	FORD, SOLOMON.	1889	HADLEY, FRANK.
1890	FORREST, WILLIAM.	1892	HAIGH, THOMAS FREDERICK.
1892	FORSTER, WALTER HILL.	1892	HALES, ARTHUR JOHN.
1888	FOSTER, FRANK.	1894	HALKYARD, WILLIAM REDFORD.
1892	FOSTER, JAMES HERBERT FURMEDGE.	1884	HALL, WILLIAM TIMOTHY (<i>Institution Prize, 1884</i>).
1892	FOX, CHARLES EDWARD.	1890	HAMPTON, GEORGE FREDK. WILLIAM.
1894	FOX, FREDERICK RUSSELL.	1892	HANKINSON, FRANCIS HENRY.
1891	FRANKLIN, BENJAMIN BELGROVE.	1887	HANSELL, REGINALD GODDARD.
1890	FRASER, WILLIAM.	1894	HARDIMAN, HARRY.
1889	GALSWORTHY, VINCENT SOMERS.	1887	HARDING, FREDERICK ALLCROFT.
1892	GARDNER, GILBERT.	1894	HARRISON, GEORGE JOHN ROBERT-SON (<i>Special Prize, 1894</i>).
1890	GARRARD, ARTHUR NORMAN.	1888	HASKINS, WILLIAM ALBION.
1894	GARRETT, ARTHUR BERRY.	1889	HASLAM, DRYLAND, JUN.
1892	GERMAN, GEORGE, JUN. (<i>Driver Prize, 1892</i>).	1883	HASLUCK, LANCELOT GERALD.
1886	GIBB, WILLIAM PASHLEY.	1893	HAWES, FREDERICK KIRK.
1885	GIBBON, WILLIAM JACOMB (<i>Driver Prize, 1885</i>).	1890	HAYWARD, FREDERICK GEORGE.
1889	GIDDY, OSMAN HORTON.	1889	HEAD, JOHN GEORGE.
1894	GILBERT, JOHN SAINSBURY.	1894	HEASLER, HOLLAND CHARLES.
1894	GLOVER, HENRY ALEXANDER.	1885	HEBBLETHWAITE, CHARLES HENRY.
1889	GODDARD, ALEXANDER.	1894	HECKFORD, HARLEY.
1885	GODFREY, ROBERT.	1892	HELLICAR, GEORGE THOMAS (<i>Special Sanitary Science Certificate, 1893</i>).
1886	GOLIGHTLY, CHARLES HUGH.	1886	HENDERSON, RICHARD.
1889	GRANT, JOSEPH.	1894	HEWARD, ERNEST JAMES.
1893	GRAY, PERCY WILLIAM.	1893	HEWETT, GEORGE THOMPSON.
1890	GREEN, ALEXANDER ERNEST.	1889	HIGGINS, GEORGE.
1891	GREEN, EDMUND HORACE.	1886	HILL, ALFRED.

Members who have Passed the Professional Associateship Examination—continued.

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| 1885 HILLIARD, GEORGE EDWARD. | 1886 KING, WILLIAM ISAAC. |
| 1888 HODGE, LEONARD PERCIVAL. | 1892 KNIGHT, GEORGE EDWARD. |
| 1890 HODGKINSON, JAMES HENRY. | 1888 LAMPERT, GODFREY CHARLES. |
| 1893 HOLJDAY, PERCY CAVE. | 1893 LANCASTER, JOHN ROY. |
| 1891 HOLLIS, HERBERT. | 1885 LANSDOWN, GEORGE ARTHUR. |
| 1891 HOLLIS, RALPH. | 1890 LARKIN, RICHARD WEBSTER. |
| 1894 HOLMES, JOHN EDWARD. | 1891 LAWLEY, FREDERICK WILLIAM. |
| 1888 HOMAN, HUBERT FRANKLIN. | 1890 LEANING, HENRY JOHN. |
| 1887 HOOPER, CECIL HENRY. | 1894 LEANING, WILLIAM ARTHUR. |
| 1890 INNES, GILBERT PLANTAGENET MITCHELL. | 1836 LEE, JOHN WILFRID. |
| 1893 IRVINE, ARCHIBALD WYNDHAM. | 1888 LEVERTON, FRANK JOHN WALDEMAR
(<i>Special Sanitary Science Certificate</i> , 1893). |
| 1894 *JACKSON, ALFRED ERNEST. | 1890 LEWIS, ARTHUR LLEWELYN. |
| 1894 JACKSON, EDWARD HENRY. | 1894 LIGHTFOOT, FRANCIS PRIDEAUX. |
| 1894 JARMAN, WILLIAM (<i>Institution Prize</i> , 1894). | 1892 LITTLE, HENRY. |
| 1892 JARMAN, FRANK WILMOT. | 1891 LONGSDON, EDWARD MOREWOOD. |
| 1892 JARRETT, THOMAS WILLIAM. | 1886 LOWE, CHARLES ROBERT. |
| 1893 JEFFREE, SYDNEY. | 1892 LUCAS, JOHN ARCHIBALD. |
| 1893 JENKINSON, JOHN. | 1894 LYONS, EDWARD COLVILL. |
| 1894 JENNER, WILLIAM. | 1894 MCCARTHY, HENRY ROBERT. |
| 1891 JESSETT, CHARLES EDWARD VERNON. | 1893 MACER, ALFRED THOMAS. |
| 1892 JOHNS, PERCY. | 1893 MADDOX, HARRY EDWARD. |
| 1892 JOHNSON, BERNARD MARR. | 1893 MANN, FREDERICK CHARLES THOMAS |
| 1883 JOHNSON, HENRY. | 1888 MANN, ROBERT BAGSHAW. |
| 1887 JOHNSTON, WALTER HENRY. | 1893 MARRIOTT, CECIL WYNN. |
| 1887 JONAS, HARRY MARSHALL (<i>Institution Prize</i> , 1887). | 1893 MARTIN, ALFRED JOHN (<i>Special Prize</i> , 1893). |
| 1886 JONAS, SAMUEL MARSHALL. | 1888 MARTIN, HEBER GAMBLING (<i>Institution Prize</i> , 1888). |
| 1894 JONES, DAVID PUGH. | 1893 MARTIN, SAMUEL. |
| 1888 JONES, FREDERICK HERBERT. | 1888 MARTIN, THOMAS. |
| 1883 JONES, HENRY ARTHUR. | 1889 MASON, CHARLES WILLIAM HAYLEY. |
| 1891 JOYCE, HARRY WARD. | 1885 MASSIE, FRANK. |
| 1885 JULL, WILLIAM VINCENT. | 1893 MATHEWS, LEWIS OSLER. |
| 1890 KAY, WALTER ROBERT. | 1892 MAUGHAN, JOHN (<i>Special Forestry Certificate</i> , 1893). |
| 1894 KEEP, WILLIAM HENRY. | 1886 MAXWELL, FRANCIS WILLIAM. |
| 1890 KEMP-SMITH, JAMES FREDERICK. | 1894 MAY, WILLIAM CHARLES. |
| 1893 KENNETT, CHARLES ARTHUR. | 1892 MELLENFIELD, JAMES HENRY. |
| 1894 KIESER, WILLIAM HENRY GUSTAV. | |
| 1894 KILLICK, ANTHONY EDWARD. | |
| 1887 KING, ALFRED. | |

Members who have Passed the Professional Associateship Examination—continue 1.

1893	MELLOR, JAMES FREDERICK.	1894	PAIN, WILLIAM HENRY.
1887	MELROSE, FRANK.	1888	PALAMOUNTAIN, JOSEPH WILLIAM.
1892	MENZIES, ROBERT.	1891	PALMER, WILLIAM EDWARD KING.
1894	MERCER, CHARLES EDWARD.	1889	PARRIS, CHARLES JOHN.
1890	MERRY, ARTHUR WALKER (<i>Institution Prize</i> , 1890).	1887	PARRY, RICHARD.
1894	MILLER, FREDERICK WILLIAM.	1894	PARRY, RICHARD FREDERICK.
1892	MILLER, GEORGE FREDERICK.	1890	PATRIDGE, EDWARD JOHN (<i>Driver Prize</i> , 1890).
1891	MITCHELL, GEORGE SHARMAN.	1883	PAULL, ALAN.
1894	MITCHELL, LEWIS.	1893	PEARCE, FRED. W.
1884	MIXER, EDWARD.	1893	PEARSON, HOWARD.
1890	MOLYNEUX, HERBERT ERNEST.	1893	PEGGE, JOHN THOMAS.
1893	MONSON, HENRY JOHN.	1889	PERKINS, JOSEPH.
1883	MOORE, HAROLD EDWARD.	1886	PERKINS, WALTER FRANK (<i>Special Prize</i> , 1886).
1892	MORRIS, RICHARD PERCIVAL.	1885	PERKS, SYDNEY.
1894	MORRIS, WILLIAM HENRY.	1894	PHILLIPS, FRANCIS JOHN.
1892	MORRISH, HUGH KENNETH.	1887	PHILLIPS, WILLIAM DEARLOVE (<i>Special Prize</i> , 1887).
1893	MORRISON, DANIEL.	1886	PHYSICK, WALTER FREDERICK (<i>Institution Prize</i> , 1886).
1893	MORRISON, GERARD DONALD.	1894	PILDITCH, JOHN JARVIS.
1890	MOULD, GRAHAM HARLEY.	1883	PILDITCH, PHILIP EDWARD.
1883	MOYES, JOHN HELENUS.	1890	PINDER, RICHMOND.
1889	MUIR, JAMES (<i>Institution Prize</i> , 1889).	1889	POCHIN, THOMAS CLEMENT
1891	MULLER, JOHN JOSEPH.	1891	POGGIO, ELOI JOHN.
1893	NEIGHBOUR, CHARLES EDMUND.	1890	POTTER, HERBERT GEORGE.
1894	NEUBRONNER, HARRY ALFRED.	1894	POWELL, CHARLES REGINALD EVERNDEN.
1892	NEWMAN, SAMUEL FRANK.	1892	PRALL, HERBERT ALEXANDER.
1894	NICHOLLS, EDWARD ALFRED.	1890	PRALL, HERBERT EDWARD.
1890	NOCKOLDS, ALFRED GEORGE.	1886	PRATER, THOMAS HERBERT.
1888	NOCKOLDS, MARTIN CHARLES HUBERT.	1888	PRESTON, SAMUEL DAVID.
1893	NORMAN, JAMES NOEL.	1892	PRICE, RICHARD ARNOLD.
1891	OAKLEY, CHRISTOPHER PERCIVAL.	1894	FRITCHARD, HERBERT ALFRED.
1890	OAKLEY, JOHN HUBERT.	1889	PUCKRIDGE, PERCIVAL MARTIN.
1890	OGDEN, MICHAEL GUY.	1893	PUNCHARD, CHARLES BATES.
1890	OSENTON, GEORGE, JUN.	1888	PUNCHARD, FREDERICK BURT.
1892	OUVRY, PETER ARNOLD.	1892	RAFFETY, HERBERT WILLIAM (<i>Special Prize</i> , 1892).
1892	OVENDEN, CHARLES.		
1894	PAGE, SEANLEY HATCH.		
1893	PAIN, GEORGE LLOYD.		
1883	PAIN, JAMES.		

Members who have Passed the Professional Associateship Examination—continued.

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| 1885 RAND, JOHN. | 1893 SLY, JOSEPH TOWNSON. |
| 1894 READ, WALTER HERBERT. | 1894 SMITH, ALEXANDER GEORGE. |
| 1891 RICHARDSON, OLIVER ARTHUR. | 1893 SMITH, FRANK BRAYBROOKE. |
| 1894 ROBERTS, JOSEPH WM. GEORGE. | 1888 SMITH, FRANK WILLIAM (<i>Driver Prize, 1888</i>). |
| 1891 ROBINS, PHILIP SEYMOUR. | 1890 SMITH, JAMES. |
| 1887 ROBINSON, ALFRED WHITMORE. | 1890 SNAILUM, WALTER WADMAN. |
| 1891 ROBINSON, HENRY HERBERT. | 1891 SOUTTER, ERNEST. |
| 1888 ROLLESTON, WILLIAM GUSTAVUS STANHOPE (<i>Institution Prize, 1883</i>). | 1893 SOWELS, WILLIAM CLOWES. |
| 1893 RONEY-DOUGAL, JOHN DOUGAL. | 1890 SPELMAN, WILLIAM WILTON RIX. |
| 1886 ROODS, ALFRED (<i>Driver Prize, 1886</i>). | 1892 SQUIRE, GERALD ROBERT (<i>Institution Prize, 1892</i>). |
| 1888 ROPER, JOHN SIMPSON. | 1889 STAINTON, FRANCIS CHARLES. |
| 1889 ROWLEY, WILLIAM TAYLOR. | 1893 STALEY, ALBERT HENRY. |
| 1886 RUDDLE, FRANK J. | 1893 STAPLEDON, ERNEST ALLEN. |
| 1883 RUNDLE, EDWARD COLLINS. | 1892 STAUNTON-WING, GEORGE. |
| 1884 SADLER, GEORGE WILLIAM, JUN. | 1888 STUCKÉ, WILLIAM HENRY |
| 1894 SAISE, ALFRED JOHN. | 1894 STUPART, CHARLES WALTER. |
| 1893 SAKER, SYDNEY. | 1884 STURGE, THEODORE. |
| 1893 SALE, ARTHUR REED. | 1885 STURGESS, JOHN MOORE. |
| 1887 SALT, REGINALD NOWELL. | 1889 STURLEY, ARTHUR DYSON. |
| 1889 SAMPSON, WILLIAM. | 1890 SUMMERFIELD, JOSEPH CHARLES. |
| 1883 SATCHELL, CHARLES (<i>Special Prize, 1883</i>). | 1887 SWETENHAM, HENRY. |
| 1889 SATCHELL, HERBERT ARNOLD. | 1894 TALLENT, EDWIN JAMES. |
| 1889 SAUNDERS, CHARLES HERBERT. | 1889 TAYLOR, HARRY WILLIAM. |
| 1890 SAVILL, EDWIN. | 1893 TEE, SAMUEL CLIFFORD. |
| 1894 SAWYER, JOHN ASHTON. | 1891 TEMPLE, FREDERICK WILSON. |
| 1894 SCORER, ALFRED GEORGE. | 1894 TEWSON, LEONARD. |
| 1894 SCOTT, ARCHIBALD LACY. | 1893 THEAKSTON, WILLIAM PEASE. |
| 1892 SCOTT, THOMAS. | 1892 THOMAS, EDWARD MORGAN DAWSON. |
| 1893 SEDDON, GEORGE FARQUHARSON. | 1894 THOMAS, ILLTYD. |
| 1891 SEDGWICK, RUPERT, WILLIAM. | 1894 THOMPSON, CLAUDE WILLIAM GEORGE HUGH. |
| 1889 SELBY, FRANK. | 1893 THOMPSON, FREDERIC HUBERT. |
| 1884 SELBY, JOHN BASELY (<i>Bracketted Special Prize, 1884</i>). | 1894 THOMPSON, JOSEPH ATHERDEN. |
| 1887 SHAW, ARTHUR. | 1894 THOMPSON, ROLAND O'BRIEN. |
| 1894 SKEAT, ARTHUR PERCIVAL. | 1894 THRING, DOUGLAS THEODORE. |
| 1892 SKIPPER, HENRY HERBERT. | 1891 THURGOOD, ALBERT EDWARD. |
| 1890 SLATER, CHARLES FREDERICK. | 1885 TIFFEN, JOHN HENRY (<i>Institution Prize, 1885</i>). |
| | 1888 TILLY, HUBERT, DOUGLAS. |

Members who have passed the Professional Associateship Examination—continued

1892	TORY, JOHN EDWARD, JUN.	1892	WHEELER, JOHN HENRY.
1894	TOWNEND, WILLIAM.	1893	WHITAKER, ERNEST VICTOR.
1890	TOWNSEND, GEORGE JAMES.	1894	WHITBY, HERBERT BATESON.
1883	TREADWELL, HENRY JOHN (<i>Driver Prize, 1883</i>).	1894	WHITTAKER, JOHN DRONSFIELD (<i>Driver Prize, 1894</i>).
1891	TUCKETT, PERCIVAL FOX.	1887	WIGHT, NORMAN.
1886	TURNER, PERCY.	1891	WILKS, ERNEST STRINGER.
1889	TYLER, JAMES WILLIAM.	1894	WILLIAMS, HENRY CUTHBERT.
1893	TYLER, WILLIAM BOTT	1893	WILLIS, EDWARD.
1886	VALE, HENRY.	1893	WILSON, ALEXANDER MILLS.
1892	VENNING, ALFRED JOHN MEYBOHN.	1891	WILSON, JAMES CALVERT.
1890	VERITY, ERNEST GEORGE.	1892	WILSON, JOHN HAYES.
1887	WADE, HENRY.	1887	WILSON, WILLIAM EDWARD.
1889	WAIN, GEORGE SPARROW.	1891	WINDLEY, HENRY CHADWICK.
1893	WALDRAM, ROBERT EDWARD.	1893	WONNACOTT, ERNEST WILLIAM MALPAS.
1891	WALKER, JOSEPH ARTHUR.	1890	WOOD, CHARLES BRUCE.
1887	WARTON, WILFRED.	1890	WOOD, EDWARD BRYAN.
1890	WATSON, CLAUDE HENRY.	1894	WOOD, LESLIE STUART.
1884	WATSON, JAMES BRUCE.	1892	WOODS, ARTHUR GEORGE.
1885	WATSON, JOHN, JUN.	1891	WOODWARD, WALTER HENRY.
1888	WATSON, RICHARD.	1886	WOOLNOUGH, JOHN WILLIAM.
1893	WATSON, WILLIAM JAMES.	1887	WORTHINGTON, JAMES SCOTT.
1892	WEATHERHEAD, DAVID WILKINSON.	1894	WRIGHT, PHILIP CHETWOOD.
1892	WEBB, FREDERICK NOEL.	1893	WRIGHTSON, ROBERT GARMOND-SWAY.
1890	WEBSTER, HUGH CALTHROP.	1894	WYATT, ARCHIBALD.
1892	WELLS, WILLIAM HENRY.	1893	WYLES, JOHN WALTER.
1893	WEST, CHARLES HENRY EDWARD	1891	YOUNG HARRY AUSTIN LINDSAY
1887	WHALLEY, FREDERICK HERBERT.		
1887	WHEELER, CHARLES TREVOR		
	OGLE.		

Members Transferred since the publication of the January List from the Class of Professional Associates to that of

Fellows—

ABRAMS, BENJAMIN PERCY . .	32, Cheapside, E.C.
BIRCH, RICHARD ELWYN . .	Maes Elwy, St. Asaph, North Wales.
BROWN, ARTHUR MACDONALD .	Tring, Herts.
COPE, HENRY JAMES	202, Clapham Road, S.W.
FORD, SOLOMON	3, Queen Street, E.C.
FRANKLIN, BENJAMIN BELGROVE	Holly Walk, Luton, Beds.
GARDNER, GILBERT	Castle Street, Woodbridge, Suffolk.
LEANING, HENRY JOHN . . .	28, John Street, Bedford Row, W.C.
PUNCHARD, FREDERICK BURT .	Envile Estate Office, near Stourbridge.

Members who have Died since the publication of the January List.

Honorary Member—

VIGERS, FRANCIS.	4, Frederick's Place, E.C.
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Fellows—

BAILEY, STEPHEN	Nynehead, Wellington, Somerset.
CLARKE, RICHARD	77, Colmore Row, Birmingham.
CLARKE, THOMAS CHATFEILD .	63, Bishopsgate Street Within, E.C.
DALE, JOHN	16, Whitehall Place, S.W.
MURGATROYD, JAMES	23, Strutt Street, Manchester.
ROSSER, WILLIAM	Rhydyrhelig, Swansea.

Professional Associate—

BATE, WILLIAM HENRY . . .	Thorne House, Grove Park, Camberwell, S.E.
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List of Provincial Committees.

JULY 1st, 1895.

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(A ² .) Cumberland and Westmoreland	84	(K.) Berks, Bucks, and Oxon . .	99
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(C.) Yorkshire	87	(M.) Devon and Cornwall . . .	101
(D.) Salop and Hereford	90	(N.) Somerset, Gloucester, and North Wilts	102
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(A¹.) NORTHUMBERLAND AND DURHAM COMMITTEE.*Chairman.*

THOMAS JOHN ARMSTRONG, 14, Hawthorn Terrace, Newcastle-on-Tyne.

AYNSLEY, ROBERT JOHN . . .	Gosforth, Newcastle-on-Tyne.
BAINBRIDGE, ROBERT STAGG . .	Keverstone, near Staindrop, Durham.
BOLAM, WILLIAM THOMAS . . .	Cross House, Westgate Road, Newcastle-on-Tyne.
BRYDON, ROBERT	The Dene, Seaham Harbour, Durham.
CLARK, JOHN McCLARE	Haltwhistle, Northumberland.
CLARK, NATHANIEL	Beamish Park, Chester-le-Street, Co. Durham.
CURRY, HENRY JOHN	58, High Street, Stockton-on-Tees.
EADE, ARTHUR WILLOUGHBY } FRENCH	Feethams, Darlington.
FORSYTH, THOMAS HILLS . . .	39, Northumberland Street, Newcastle-upon-Tyne.
GREEN, ROBERT COWPER . . .	26, Fawcett Street, Sunderland.
HEDLEY, JOHN HUNT	55, John Street, Sunderland.
HEDLEY, THOMAS FENWICK . . .	Sunderland.
JAMES, CHRISTIAN HUGH . . .	Rudchester, Wylam-on-Tyne.
MINTER, WILLIAM	81, Bondgate, Darlington.
NICHOLSON, THOMAS COOKE. . .	{ Blaydon-on-Tyne, and 24, Grainger Street West, Newcastle-on-Tyne.
OLIVER, CHARLES EDWARD . . .	Oakfield, Shotley Bridge, Co. Durham.

PEIRSON, HENRY THOMAS . . .	Brancepeth, R.S.O., Co. Durham.
RODHAM, JOHN	16, Finkle Street, Stockton-on-Tees.
ROWLANDSON, CHRISTOPHER . .	The College, Durham.
RUDMAN, SIDNEY CHARLES . . .	Windlestone, Ferry Hill, Co. Durham.
SAMPLE, CHARLES HERBERT . . .	Matfen, near Newcastle-on-Tyne.
SAMPLE, THOMAS	Bothal Castle, Morpeth, Northumberland.
SAMPLE, WILLIAM COLLINGS . . .	Bothal Castle, Morpeth, Northumberland.
SCARTH, WILLIAM T.	Raby Castle, Darlington.
TAYLOR, JOHN WILLIAM	31, Westgate Road, Newcastle-on-Tyne.
TOMLINSON, THOMAS	Estate Office, Alnwick Castle.
WALL, GEORGE YOUNG	Exchequer Buildings, Durham.
WALLACE, HENRY	Trench Hall, Gateshead-on-Tyne.
WELLS, EDWIN	Barnard Castle, Co. Durham.
WILSON, SIR JACOB	Chillingham, Alnwick.

Total, 31 Members.

(A².) CUMBERLAND AND WESTMORELAND COMMITTEE.

Chairman.

JOHN HOLME, Owlet Ash, Milnthorpe, Westmoreland.

BANKS, JOHN	Kendal, Westmoreland.
BIRKETT, TOM	Foxton House, Penrith, Cumberland.
BOWMAN, JOHN JAMES	Estate Office, Netherby, Carlisle.
HAYTON, JOSEPH WILLIAM	Devonshire Chambers, Carlisle.
HAYTON, PATTINSON	Devonshire Chambers, Carlisle.
HESKETT, WILLIAM JAMES	{ 24, King Street, Penrith, and Viaduct Chambers, Carlisle, Cumberland.
HOGGARTH, ARTHUR	Kendal, Westmoreland.
HOGGARTH, EDWIN	Kendal, Westmoreland.
HUDSON, JAMES	Penrith, Cumberland.
LITTLE, WILLIAM	Hutton Hall, Penrith, Cumberland.
POTTS, JAMES.	Stanbeck, Workington, Cumberland.
PUNCHARD, FREDERICK	{ Underley Estate Office, Kirkby Lonsdale, West- moreland.
RICHARDSON, GEORGE	5, Lonsdale Street, Carlisle.
STANLEY-DODGSON, STANLEY DICKENSON	{ Estate Office, Somerset House, Whitehaven, Cumberland.
WATT, ALEXANDER	Ravenglass, Carnforth.
WEBSTER, ALEXANDER	100, Highgate, Kendal, Westmoreland.

Total, 17 Members.

(B.) COUNTIES PALATINE COMMITTEE.

Chairman.

JOHN DAVIES, Mollington, Chester.

ADDIE, PETER	30, Winckley Square, Preston.
BAILEY, LEONARD	Estate Office, Scorton, Garstang.
BANCROFT, FREDK. HERBERT	88, Mosley Street, Manchester.
BANCROFT, HENRY	88, Mosley Street, Manchester.
BANKS, THOMAS	60, King Street, Manchester.
BARROW, THOMAS ROBERT	Lunesdale, Oak Street, Southport.
BATEY, HENRY SIMPSON	51, King Street, Manchester.
BECKWITH, HENRY LANGTON	14, North John Street, Liverpool.
BERTWISTLE, JAMES	1, Tackett's Street, Blackburn.
BIRCH, WALTER DE HOGHTON	Hoghton Estate Office, Walton Hall, Preston.
BOWDEN, JOHN	14, Ridgefield, Manchester.
BRADY, CHARLES ALLDIS	17, Warren Street, Stockport.
BRADY, RALPH HOLLINSHED	78, Cross Street, Manchester.
BRADY, WILLIAM HOLLINSHED	17, Warren Street, Stockport.
BRIDGFORD, ERNEST JAMES	28, Cross Street, Manchester.
BRIDGFORD, COL. ROBERT, C.B.	28, Cross Street, Manchester.
BROCKLEBANK, JOHN	{ 58A, Yorkshire Street, Rochdale, and Crossbrook, Todmorden.
CAMPBELL, HENRY HUNTER	Sutton Hall, St. Helen's.
CARSWELL, WILLIAM	Capesthorpe, Chelford, Cheshire.
CARTWRIGHT, JOSHUA	Bury, Lancashire.
COCKS, ROBERT	Estate Office, Altrincham, Cheshire.
CORBETT, CHRISTOPHER	9, Albert Square, Manchester.
CROSS, JOHN	77, King Street, Manchester.
CROSS, WILLIAM HASLAM	77, King Street, Manchester.
DAWSON, EDWARD HOWARD	41, Market Street, Lancaster.
DORNING, ARTHUR HARRY	41, John Dalton Street, Manchester.
DORNING, ELIAS	41, John Dalton Street, Manchester.
EAGLE, WILLIAM	77, King Street, Manchester.
EARLE, THOMAS ALGERNON	90, King Street, Manchester, and Liverpool.
EARSHAW, JACOB	36, South King Street, Manchester.
EASTHAM, JAMES COOK	The Town Hall, Manchester.
ELLIS, FRANCIS, JUN.	Trafford Park, Patricroft, near Manchester.
EVANS, CHARLES LEE	Norton Hill, Runcorn, Cheshire.
FAIR, JACOB WILSON	{ Haigh Hall, Wigan, and 8, Winckley Street, Preston.
FAIR, JAMES STRETTON	4, Winckley Street, Preston.
FAIR, THOMAS	Estate Offices, Lytham.

FAIRCLOUGH, WILLIAM . . .	{ Leigh, Lancashire, and 60, King Street, Manchester.
FLETCHER, THOMAS. . . .	{ Dunkenhalgh, Clayton-le-Moors, near Accrington, and 46, Fishergate, Preston.
FOWLER, HENRY	63, Dale Street, Manchester.
GODDARD, ALEXANDER . . .	Bank Place, Chester.
GRADWELL, ARTHUR RICHARD .	10, Richmond Terrace, Blackburn.
HALL, CHARLES EDWARD . .	297, Old Chester Road, Rock Ferry, Cheshire.
HANSON, AMOS	35, Church Street, St. Helen's.
HARGRAVES, STEPHEN . . .	{ Brabyns Estate Office, Manor House, Marple, Cheshire.
HOLDEN, JOHN	64, Cross Street, Manchester.
HOLMES, JAMES	23, Delamere Street, Ashton-under-Lyne.
HOLT, GEORGE HENRY . . .	10, Richmond Terrace, Blackburn.
HOPKINSON, ALFRED	15, Agar Street, Bury, Lancashire.
HURRELL, JOHN WEYMOUTH .	25, Brazennose Street, Manchester.
JACKSON, CHARLES	23, Brazennose Street, Manchester.
JONES, ISAAC MATTHEWS . .	The Town Hall, Chester.
JOHNSTON, WALTER HENRY .	County Offices, Preston.
KIRBY, EDMUND	5, Cook Street, Liverpool.
LANCASTER, CHARLES HOLLAND	{ Union Offices, Brougham Terrace, West Derby Road, Liverpool.
LARMUTH, GEORGE HORATIO .	{ Wilton Chambers, 10, St. Ann's Square, Manchester.
LINAKER, CHARLES EDWARD .	Frodsham, Chester.
LORING, JOHN	The College, Doddington, Nantwich.
MCCRACKEN, WILLIAM . . .	Englesea House, Crewe.
MACIVER, COLIN	23, Bold Street, Warrington.
MAXWELL, FRANCIS WILLIAM .	41, Corporation Street, Manchester.
MEADE, THOMAS DE COURCY .	Kenmore, Didsbury, Manchester.
MELLER, WILLIAM GALLOWAY .	22, Cooper Street, Manchester.
MILLS, WILLIAM EDWARD . .	49, Hamilton Square, Birkenhead.
MYRES, JOHN JAMES. . . .	15, Chapel Street, Preston, and Blackpool.
NEVETT, FRANCIS WALTER . .	54, Claremont Terrace, Fulwood, Preston.
NEVETT, THOMAS	41, Fishergate, Preston.
NUTTALL, THOMAS	12, Market Street, Bury.
OWEN, RICHARD NEWSHAM . .	Haughton, Tarporley.
PAIN, COARD SQUAREY . . .	14, North John Street, Liverpool.
PARK, PHILIP SAMUEL . . .	18, Winckley Street, Preston.
PARK, WILLIAM PHILIP. . .	18, Winckley Street, Preston.
PARKER, THE HON. CECIL } THOMAS.	Eccleston, Chester.
PARMETER, FRANK	Middle Lees, Clitheroe.
PEARSON, ALFRED	Estate Offices, Dukinfield.
PIERSON, CHARLES	29, Cooper Street, Manchester.

PRICE, JOHN	Lark Lane, Toxteth Park, Liverpool.
RABY, JOSEPH WALKER	78, Cross Street, Manchester.
RADFORD, WILLIAM	19, Brazennose Street, Albert Square, Manchester.
RADFORD, WILLIAM HAROLD . .	19, Brazennose Street, Albert Square, Manchester.
REA, JOHN MARCUS BEAUMONT .	8, Winckley Street, Preston.
ROBINSON, GEORGE EDWARD . .	{ 9, Tackett's Street, Blackburn, and Clitheroe Castle.
ROPER, JOHN SIMPSON	32, Market Square, Lancaster,
SCOVELL, JOHN	Oulton Park, Tarporley, Cheshire.
SHELMERDINE, HENRY	{ Estate Offices, L. & Y. Railway, Hunt's Bank, Manchester.
SMITH, JOHN THOMPSON	Tattondale, Knutsford, Cheshire.
STOCKS, FREDERICK WILLIAM .	Mere, Knutsford.
SUTHERS, JAMES	Victoria Villas, Todmorden.
TAYLOR, THOMAS WALTERS . .	25, Brazennose Street, Manchester.
THOMAS, GLEGGE	{ Cheshire Lines Committee, Central Station, Liverpool.
THOMPSON, FRANCIS WILLIAM .	5, Wood Street, Bolton.
VEEVERS, RICHARD	Woningworth, Fulwood Park, Preston.
WAINWRIGHT, THOMAS TAYLOR .	21, Leigh Street, Liverpool.
WATTS, SAMUEL LINGARD . . .	40, South King Street, Cross Street, Manchester.
WATTS, WILLIAM JOHN	40, South King Street, Cross Street, Manchester.
WHALLEY, HENRY SHAW	3, Hunter Street, Town Hall Square, Chester.
WHITE, JOHN	Warrington, Lancashire.
WILSON, THOMAS SILK	Albert Square, Manchester.
WILSON, WILLIAM HENRY . . .	29, Fountain Street, Manchester.
WOLFENDEN, THOMAS	54, Hall Street, Southport.
WRENNALL, WILLIAM	9, Harrington Street, Liverpool.
YOUNG, EDWARD HERBERT . . .	Central Chambers, South Castle Street, Liverpool.
YOUNG, OSWALD WILLIAM . . .	Mersey Docks and Harbour Board, Liverpool.

Total, 103 Members.

(C.) YORKSHIRE COMMITTEE.

Chairman.

JAMES RUTHERFORD, Kirk-leatham, Redcar,

ABBEY, JOE BURMAN	28, John William Street, Huddersfield.
ABBOTT, ROBERT THOMAS G. .	Whitley House, Malton.
ARMISTEAD, RICHARD	118, Main Street, Bingley.
ARMYTAGH, GEORGE JOHN . . .	Kirklees Park, Brighouse.
BAINES, MATTHEW TALBOT . . .	Estate Office, Brodsworth, Doncaster.
BATEMAN, JOHN	Hall Garth, Clapham.

BELL, ALBERT WILLIAM. . . .	18, Bank Street, Accrington.
BILSON, JOHN	23, Parliament Street, Hull.
BIRKETT, WILLIAM	4, Glebe Road, Harrogate.
BOTTERILL, WILLIAM	23, Parliament Street, Hull.
BRADLEY, WILLIAM EDWARD . .	The Hall, Ebberston, York.
BRODRICK, FREDERICK STEAD .	Cogan Chambers, Bowl Alley Lane, Hull.
BROSTER, ROBERT BUCK . . .	6 and 8, Temple Street, Keighley.
BUCKLEY, GEORGE	Tower Chambers, Halifax.
CARRINGTON, THOMAS	Endcliffe Court and Kiveton Park, near Sheffield.
CROWEN, HENRY LLEWELLYN .	Londesborough Estate Office, Market Weighton.
CLARE, EDWARD LOVELL . . .	Yorkshire Bank Chambers, Bradford.
CLARKE, CHRISTOPHER	Charlcot, Bedale.
CLARKE, JOHN WILLIAM . . .	Guisbrough.
CLUTTON, WILLIAM JAMES . .	The Mount, York.
COWGILL, BRIAN BOLLANS HIRD	13A, Piece Hall Yard, Bradford.
COX, EDWARD SAMUEL	3, New Street, York.
CROWTHER, JOHN HERBERT . .	38, New Street, Huddersfield.
CUNDY, HUBERT JOHN	Wetherby and Leeds.
DEMETRIADI, THOMAS MARSDEN	28, John William Street, Huddersfield.
DENT, RALPH JOHN.	Highfield Villas, Sedbergh, Yorks.
DRANSFIELD, HENRY BROOK . .	12, 13, and 14, Estate Buildings, Huddersfield.
EASTON, JOHN H.	Bowl Alley Lane, Hull.
ELLISON, MICHAEL	Duke of Norfolk's Estate Office, Sheffield.
EVANS, WILLIAM	St. John Street, Beverley.
FARREER, JOHN	Oulton, near Leeds.
FENWICK, THOMAS V.	Leeds.
FILLINGHAM, EDWARD	Spring Bank, Hull.
FLOCKTON, THOMAS JAMES. . .	15, St. James' Row, Sheffield.
FORBES, CHARLES MANSFELDT .	14, New Street, York.
FOWLER, FREDERICK.	St. James' Street, Sheffield.
FOWLER, REGINALD WILLIAM .	3, Hartshead, Sheffield.
FOX, CHARLES JAMES	22, George Street, Halifax.
FRANCE, ARTHUR ALDERSON . .	99, Swan Arcade, Bradford.
FRANCE, CHARLES	99, Swan Arcade, Bradford.
FRYER, GEORGE	{ 15, Parliament Street, Hull, and Rose Villa, Bishop Wilton, near York.
GOTT, CHARLES	8, Charles Street, Bradford.
GOTT, CHARLES HENRY. . . .	8, Charles Street, Bradford.
GOTT, FRANK.	3, East Parade, Leeds.
GREAVES, JOHN OLDROYD . . .	69, Westgate, Wakefield.
GREGSON, WILLIAM	Baldersby, S.O., Yorks.
HANSON, JOHN HENRY	20, Ramsden Street, Huddersfield.
HEBBLETHWAITE, LOUIS . . .	Conservancy Buildings, and Aulaby Road, Hull.
HEPPER, JOHN	East Parade, Leeds.

HINDLE, JOHN	24, Bank Street, Bradford.
HOBSON, HARRY	Swinefleet, near Goole.
HORNSBY, ROBERT	Estate Office, Hovingham.
HORSFALL, RICHARD	Post Office Buildings, George Street, Halifax.
HORSFALL, RICHARD EDGAR	Post Office Buildings, George Street, Halifax.
INNOCENT, CHARLES JOHN	Sheffield.
JACKSON, BENJAMIN WHITEHEAD	George Street, Halifax.
JACKSON, SAMUEL	Tanfield Chambers, Bradford.
JOLLY, JOHN HAWKINS	29, East Mount Road, York.
JONES, JAMES WILLIAM	54, Caledonian Road, Leeds.
KAYE, JOHN EDWARD	Bretton Lodge, Wakefield.
KIRKBY, HERBERT	Lythe Hall, near Whitby.
LEATHER, GEORGE HERBERT	Central Bank Chambers, Leeds.
LOFTHOUSE, ROGER	62, Albert Road, Middlesborough-on-Tees.
MARSHALL, PETER	3, Hartshead, Sheffield.
MASSIE, FRANK	Tetley House, Kirkgate, Wakefield.
MAY, THOMAS HENRY	12, George Street, Sheffield.
MILNES, ELI	99, Swan Arcade, Bradford.
NEWSAM, SAMUEL WATERHOUSE	3, East Parade, Leeds.
OLDROYD, LINLEY	5, Oxford Place, Leeds.
PETerson, GEORGE BRODRICK	Baldersby, S.O., Yorkshire.
PIERCY, HENRY ONSLOW	The Elms, Lowthorpe.
POPPLE, JOHN	Groves Hall, Sleights, near Whiby.
RICHARDSON, JOHN	Methley Park, Leeds.
SAMPSON, WILLIAM	Beauchief Abbey, Sheffield.
SMITH, FREDERIC ELLISON	Tanfield Chambers, Bradford.
SMITH, HARRY RUSSELL	Exchange Buildings, Bradford.
SMITH, JOSEPH	Tanfield Chambers, Bradford.
SMITH, WHEATER	15, Cheapside, Bradford.
TIFFEN, JOHN HENRY	Conservancy Buildings, Hull.
TODD, WILLIAM HENRY	County Buildings, Hull.
WADE, JOHN	10, Pitt Street, Barnsley.
WALKER, FRANCIS ELLIOTT	Blake Street, York.
WATSON, JOHN, JUN.	Wentbridge Lodge, Pontefract.
WELLSTED, WILLIAM HENRY	Manor Street, Hull.
WHITE, ALFRED EDWARD	Town Hall, Hull.
WILDE, WILLIAM	Brockett House, Sharrow, Sheffield.
WINN, THOMAS	90, Albion Street, Leeds.
WOODHEAD, WILLIAM BOOTH	18, Exchange Buildings, Bradford.
WRIGHT, JAMES	Rawcliffe, near Selby.

Total, 90 Members.

(D.) SALOP AND HEREFORD COMMITTEE.

Chairman.

HENRY JAMES WYLEY, Bridgnorth, Salop.

APPERLEY, WILLIAM HARVARD .	Hereford.
ASHDOWN, AUGUSTUS HARDING .	Uppington, near Willington, Salop.
BATHER, JOHN T.	9, The Square, Shrewsbury.
BROWN, JOHN POWLES . . .	21, East Street, Hereford.
BURD, LAURENCE	Mayfield, Shrewsbury.
BURD, TIMOTHEUS HENRY . .	School Gardens, Shrewsbury.
DAVIS, ALFRED THOMAS . . .	Shire Hall, Shrewsbury.
DE WEND, WILLIAM FENTON .	New Market Buildings, Bridgnorth.
DODGSON, WILFRED LONGLEY .	{ The Court, Cleobury North, Bridgnorth, and 55, Broad Street, Ludlow.
EVANS, WILLIAM ERNEST . .	School Gardens, Shrewsbury.
EVANS-VAUGHAN, HENRY . .	Weston-under-Redcastle, Shrewsbury.
FENN, THOMAS	Downton Castle, Ludlow.
GODSELL, GEORGE HERBERT .	Palace Chambers, King Street, Hereford.
GRIFFITHS, EDWARD, JUN. . .	Knockin, near Oswestry.
HALL, WILLIAM TIMOTHY . .	Hawkstone Estate Office, near Shrewsbury.
HAYWOOD, HENRY	9, West Street, Hereford.
HAYWOOD, WILLIAM MATHEWS.	9, West Street, Hereford.
HICKMAN, THOMAS	Leaton, near Shrewsbury.
LANE, CECIL NEWTON	Whiston Hall, Shifnal, Salop.
LAWFORD, WILLIAM ROBINSON .	Underhill, Oswestry.
MADGE, JOHN	Hope End Estate Office, Ledbury.
MILLYARD, JOHN WILLIAM . .	Estate Office, Saltmarshe Castle, Bromyard.
MORRIS, EDWARD HENRY . . .	Chirbury, Salop.
NEWILL, ROBERT HENRY . . .	Lydbury North, Shropshire.
OWEN, HENRY	Dana Chambers, Shrewsbury.
PALAMOUNTAIN, JOSEPH WILLIAM	Cloverley Estate Office, Whitchurch, Salop.
PARKER, JOHN	Mansion House, Hereford.
THURSFIELD, THOMAS HOWELLS	Barrow, Brosely, Salop.
TOWER, BROWNLOW RICHARD } CHRISTOPHER }	Bridgewater Estate Office, Ellesmere, Salop.
WARD, FELIX JOHN	The Gardens, Lydbury North, Salop.
WOLLEY, THOMAS JOHN	Clungunford Estate Office, Aston-on-Clun, Salop.
WYLEY, WILLIAM JOHN	2, School Chambers, Shrewsbury.

Total, 33 Members.

(E.) DERBY AND STAFFORD COMMITTEE.

Chairman

GILBERT MURRAY, Elvaston Estate Office, Derby.

ARNOLD, WILLIAM	23, George Street, Tamworth.
BARNES, GEORGE FREDERICK	{ Estate Office, Wingerworth Hall, near Chesterfield.
BOOTHBY, HENRY VERNON	Estate Office, Keele, and Newcastle-under-Lyme.
BRAILSFORD, HENRY	Park Nook, near Derby.
BYRON, AUGUSTUS WILLIAM	Sutton Estate Offices, Duckmanton, Chesterfield.
DUNCALFE, HENRY GEORGE	102, Darlington Street, Wolverhampton.
EARDLEY, JOHN WILLIAM	Swanwick Colliery, Alfreton, Derbysire.
EAYRS, JOHN THOMAS	Town Hall, West Bromwich.
FAWKES, ALGERNON	Sudbury, Derby.
FODEN, EDWARD ANTROBUS	Teddesley Estate Office, Penkridge, Staffs.
FORSHAW, EDWARD	{ Hanley, Staffordshire, and Springfields, Stramshall, Uttoxeter.
FULLER, THOMAS ALFRED	The College, All Saints, Derby.
HARDY, RICHARD THOMAS ASH	{ Land Agency and Estate Offices, Carter Street, Uttoxeter, Staffs.
HEATON, GEORGE HERBERT	Endon, near Stoke-upon-Trent.
HUBBERSTY, HENRY ALFRED	Buxton, Derbyshire.
HUSSEY, ROBERT	Brereton, Rugeley.
INGE, CHARLES HENRY	Broom Leasoe, Whittington, Lichfield.
JEUDWINE, WILLIAM WYNNE	Chesterfield.
LYNAM, CHARLES	Stoke-on-Trent.
MARGERESON, CHARLES FREDERIC	New Square, Chesterfield.
MARTIN, GILSON	Chatsworth, Chesterfield.
MYNORS, WALTER CHARLES TOWERS	Little Ingestre, Stafford.
NEVITT, GEORGE	Church Street, Rugeley.
NOCK, BENJAMIN BOWEN	48, Queen Street, Wolverhampton.
PARKIN, JOHN ROBERT	Idridgehay, near Derby.
SAMPSON, GEORGE	Beauchief Abbey (near Sheffield), Derbyshire.
SANDY, HENRY	Newport Road, Stafford.
SHAW, JOHN	College Place, Derby.
SHAW, JOHN, JUN. . . .	The College, All Saints, Derby.
THORPE, CHRISTOPHER	Spring House, Calow, Chesterfield.
TURNOR, EXSUPERIUS WESTON	The Green, Stafford.
WHITTON, JOHN WILLIAM	2, St. James's Street, Derby.
WINTERTON, HARRY JOHN CAMPION	Walton Warren, Burton-on-Trent.
WINTERTON, WILLIAM MOXON	St. Mary's Chambers, Lichfield
WRIGHT, JAMES	St. James's Street, Derby.

Total, 36 Members.

(F.) NOTTINGHAM AND LINCOLN COMMITTEE.

Chairman.

WILLIAM LAMBE HUSKINSON, Manor House, Epperstone, Notts.

ABBOTT, WILLIAM	Holbeach, Lincs.
BAILEY, WILLIAM SMITH . .	4, Kirkgate, Newark-upon-Trent.
BARNES, JOHN WILLIAM JAMES .	Brougham Chambers, Wheeler Gate, Nottingham.
BEAUMONT, CHARLES. . . .	East Bridgford, near Nottingham.
BEAUMONT, GEORGE. . . .	East Bridgford, near Nottingham.
BELL, JOSEPH ASKEW	Rufford Estate Office, Ollerton, Notts.
BOWLEY, JOHN CROSS	Beeston, Nottingham.
CALVERT, ARTHUR RICHARD. .	14, Low Pavement, Nottingham.
CORBY, JOSEPH BOOTHROYD. .	Scotgate, Stamford.
CROFTS, EWAN NEVILLE . . .	Caythorpe, Grantham, Lincs.
EVANS, ROBERT	Eldon Chambers, Wheeler Gate, Nottingham.
GILPIN-BROWN, WILLIAM DUNDAS	Metheringham, Lincs.
HAWLEY, HENRY MICHAEL . .	Tumby Lawn, Boston.
HAYNES, HENRY	Estate Office, Clifton, Nottingham.
HIGGINS, FREDERIC	Alford, Lincs.
HINE, GEORGE THOMAS. . . .	Victoria Street, Nottingham.
HUSKINSON, THOMAS WILLIAM .	Epperstone Manor, Nottingham.
KINGSTON, SAMUEL	Spalding, Lincs.
LEGARD, DIGBY CHARLES . . .	Highbington Hall, Lincoln.
LISTER-KATE, CHARLES WILKIN- SON	} Osberton, Worksop, Notts.
MANNERS, HENRY ALFRED . . .	
MANNERS, HENRY ALFRED . . .	Buckminster Park, near Grantham.
MARTIN, WALTER	Wainfleet, Lincs.
MASON, CHARLES.	Westgate, Louth, Lincs.
MORRIS, CHARLES	The Lodge, Radcliffe-on-Trent, Notts.
PARKIN, WILLIAM	Babworth, Retford, Notts.
RICHARDSON, CHARLES	13, Barn Hill, Stamford, Lincolnshire.
RICHARDSON, JAMES	13, Barn Hill, Stamford, Lincolnshire.
TINDALL, CHARLES WILLIAM .	Brocklesby, Lincs.
TURNER, FREDERICK JOHN . .	Mansfield Woodhouse, Notts.
TURNER, THOMAS WARNER . .	Welbeck Abbey, Worksop, Notts.
TURTON, EDWARD JAMES . . .	Horkstow, Barton-on-Humber, Lincolnshire.
VALLANCE, ROBERT FRANK . .	Mansfield, Notts.
WALKER, GEORGE BOOTH . . .	Wainfleet, R.S.O., Lincolnshire.
WALKER, HERBERT	Newcastle Chambers, Angel Row, Nottingham.
WALKER, JOSEPH.	Lenton Avenue, The Park, Nottingham.

WALKER, JOSHUA	Market Place, Retford, Notts.
WIGRAM, JOHN	South Collingham, Newark, Notts.
WOODFORDE, LIONEL BURNET	38, St. Peter's Hill, Stamford, Lines.
WOOLLEY, REGINALD	{ Silver Street, Lincoln, and South Collingham, Notts.
WOOLLEY, THOMAS CECIL SMITH	South Collingham, Newark, Notts.
WORDSWORTH, ROBERT WALTER	Whitemoor, Ollerton, Nottinghamshire.
WRIGHT, CHARLES WILLIAM	Wollaton.
WRIGHT, WILLIAM	Wollaton, Notts.
YOUNG, HARRY AUSTIN LINDSAY	Bridgegate, Retford, Notts.

Total, 45 Members.

(G.) MONMOUTHSHIRE AND SOUTH WALES COMMITTEE.

Chairman.

ROBERT FORREST, Windsor Estate Office, St. Fagan's, near Cardiff.

BLAKE, GEORGE	Stradey Estate Office, New Road, Llanelly.
BLOSSE, EDWARD F. LYNCH	Charles Street Chambers, Cardiff.
BROWN, THOMAS FORSTER	Guildhall Chambers, Cardiff.
COLES, SAMUEL HOOD COWPER	Penmyarth, Crickhowell, South Wales.
CORBETT, EDWARD WORILEY } MONTAGUE	Bute Estate Office, Castle Street, Cardiff.
DAVID, EDMUND USSHER	Old Bank Chambers, 27, High Street, Cardiff.
DAVIES, JOHN MORGAN	Froodvale, Llanwrda, South Wales.
EVANS, ARTHUR OWEN	Town Hall, Pontypridd.
GRAHAM, ARTHUR GORE	Victoria Chambers, Newport, Mon.
GRAHAM, WILLIAM	Victoria Chambers, Newport.
GRIFFITHS, WILLIAM	Gelley Wernen Estate, Llanelly, Carmarthenshire.
HARPUR, WILLIAM	Town Hall, Cardiff.
HITCHCOX, WILLIAM	Victoria Chambers, Newport.
LLEWELLIN, DAVID MORGAN	Glanwern Offices, Pontypool.
OWEN, THOMAS HENRY	High Street, Haverfordwest, Pembrokeshire.
OWEN, THOMAS RULE	High Street, Haverfordwest, Pembrokeshire.
PRICE, FRANCIS HOLBORROW } GLYNN	Longlands Place, Swansea.
REES, ITHEL TREHARNE	Guildhall Chambers, Cardiff.
REES, WILLIAM GEORGE	Holly House, Newport.
REES, WILLIAM JOHN	Cradock Street, Swansea.

RIGG, CHARLES	24, High Street, Cardiff.
ROONEY, SAMUEL	Cefn Mabley Chambers, Quay Street, Cardiff.
SHEPPARD, OSBORNE	Glynelydach, Neath.
TANNER, WILLIAM	The Leys, Bryngwn Road, Newport.
THOMAS, GEORGE	Queen's Chambers, Cardiff.
THOMAS, WILLIAM	Castlemartin Court, near Pembroke.
WANKLYN, PHILLIP ENDELL	Dixton, near Monmouth.
WARING, CHARLES EDWARD	1, Charles Street, Crockherbtown, Cardiff.
WILKINS, WILLIAM	Greenfield Villas, Llanelly.
WILLIAMS, GERALD GARNOUS	St. John's Mount, Brecon.

Total, 31 Members.

(H.) WARWICK AND WORCESTER COMMITTEE.

Chairman.

ROBERT NEVILLE HOLBECH, 21, Bennett's Hill, Birmingham.

BETRIDGE, EDWARD	28, Waterloo Street, Birmingham.
BICKERTON-WILLIAMS, EDWARD	City Chambers, 82, New Street, Birmingham.
BUCK, ALBERT	Worcester.
BUCK, HERBERT WILSON	Pierpoint Street, Worcester.
CLARKE, ALFRED DUDLEY	Estate Office, Abberley, Stourport.
COUCHMAN, HENRY BOTELER	40, Coten End, Warwick.
COUCHMAN, ROBERT EDWARD	35, Paradise Street, Birmingham.
DEER, EDWARD	Stratford-on-Avon.
DONNE, HENRY	Leek Wootten, Warwick.
EVANS, WALTER PEARSON	Caldwell, Nuneaton.
EVERILL, FRANK	59, Foregate Street, Worcester.
FAYERMAN, GEORGE METCALF	88, The Parade, Leamington.
FIDDIAN, WILLIAM	Town Hall Offices, Stourbridge.
FINN, HERBERT ARCHIBALD	59, Foregate Street, Worcester.
FOSBERY, WILLIAM THOMAS EXHAM	Warwick.
FOWLER, GERARD EDMUND	93, New Street, Birmingham.
FOWLER, HENRY	6, Waterloo Street, Birmingham.
FOWLER, RICHARD	118, Colmore Row, Birmingham.
FOWLER, WILLIAM	{ 69, Temple Row, Birmingham, and Sutton Coldfield.
GIBSON, DENSTON	98, New Street, Birmingham.
GODFREY, ROBERT	Valentine Road, King's Heath, Birmingham.

GREEN, JOHN	Dodderhill Court, Droitwich.
GRIMLEY, EDWIN FEARNE	40, Temple Street, Birmingham.
GRIMLEY, THOMAS	40, Temple Street, Birmingham.
HADLEY, FRANK	41, Temple Street, Birmingham.
HEDLEY, ROBERT WILKIN	31A, Colmore Row, Birmingham.
HENDRIKS, HENRY	34, Waterloo Street, Birmingham.
JENKINS, OSWALD	57, Colemore Row, Birmingham.
JOSELAND, CHARLES	Bank Buildings, Kidderminster.
KENWRICK, GEORGE	83, Colmore Row, Birmingham.
KING, HENRY	Stourbridge.
LUDLOW, WALTER ROBERT	{ Dorridge, Knowle, Warwick, and 18, New Street, Birmingham.
MARGETTS, JOHN WILLIAM	12, High Street, Warwick.
MASON, WILLIAM ARTHUR	31A, Colmore Row, Birmingham.
MATHEWS, GEORGE SPENCER	15, Waterloo Street, Birmingham.
MATHEWS, WILLIAM	21, Augustus Road, Edgbaston, Birmingham.
PARKER, WILLIAM HENRY	3, Foregate Street, Worcester
PEMBERTON, CHARLES OLIVER } PAGET }	69, Temple Row, Birmingham.
RAIKES, COL. GEORGE WHITT- INGTON }	Ragley Estate Office, Alcester, Redditch.
RIGHTON, EDWARD GRANTHAM	High Street, Evesham, Worcestershire.
ROBINS, WILLIAM HENRY	82A, New Street, Birmingham.
RODERICK, JOHN	2, Temple Row, West Birmingham.
SANDERS, THOMAS	148, Worcester Street, Bromsgrove.
SMITH, FRANK	37, Cannon Street, Birmingham.
SMITH, FRANK WILLIAM	Beauchamp Hill, Milverton, Leamington.
SMITH, WILLIAM	Abbott's Salford, Evesham.
STALLARD, WILLIAM	{ Sunny Lodge, Malvern Link, and Estate Office, Madresfield, Malvern Link.
TOMSON, JAMES JOHN	The Chalet, King's Norton, near Birmingham.
WHITTINDALE, JAMES	The Poplars, Kenilworth.
WILLMOT, GEORGE DYOTT	6, Waterloo Street, Birmingham.
WILLMOT, JOHN	6, Waterloo Street, Birmingham.

Total, 52 Members.

(I.) LEICESTERSHIRE, NORTHAMPTONSHIRE, AND RUTLAND COMMITTEE.

Chairman.

EDWARD KNAPP FISHER, Market Harborough, Leicestershire.

BEVEN, SEPTIMUS	86, Market Street, Ashby-de-la-Zouch.
BLETSOE, HENRY HOPKINSON .	Thrapstone, Oundle.
BOLAM, CHARLES GODFREY . .	{ Estate Office, Boughton House, Kettering, Northamptonshire.
CAVE, HENRY H.	Estate Office, Northampton.
CAVE, THOMAS NEWMAN . . .	Horton, Northampton.
CLARE, EDWARD LOVELL . . .	33, Friar Lane, Leicester.
CLOUGH-TAYLOR, HORACE GEORGE	Friar Lane, Leicester.
COALES, HERBERT GEORGE . .	Local Board Offices, Market Harborough.
CUTIAN, JOHN ELLIS	Market Square, Wellingborough.
DICKSON, THOMAS ARTHUR . .	Estate Office, Overstone Park, Northampton.
DRAPER, ARTHUR THOMAS . .	39, Friar Lane, Leicester.
EDWARDES, CHARLES BIDWELL .	The Precincts, Peterborough.
EVERARD, JOHN BREEDON . . .	6, Millstone Lane, Leicester.
FISHER, CHARLES BROWNING .	Hill Crest, Market Harborough.
GERMAN, GEORGE	Packington House, Ashby-de-la-Zouch.
GERMAN, HARRY	Loughborough and Ashby-de-la-Zouch.
GERMAN, JOHN	Ashby-de-la-Zouch.
GODDARD, JOSEPH	Market Street, Leicester.
GOODACRE, JOHN	5, Friar Lane, Leicester.
GOODACRE, ROBERT JOHNSON .	Friar Lane, Leicester.
GREEN, VALENTINE	Knipton, near Grantham.
HAMPTON, WILLIE THOMAS . .	Coalville, Leicester.
HINCKS, HENRY THORP . . .	Blaby, Leicester.
HODSON, GEORGE	Town Hall, Loughborough.
HOLLOWAY, HARRY HOWNAM .	Market Harborough.
HUMPHREYS, HENRY	Woodhouse, Loughborough.
HUMPHREYS, JOHN HENRY . .	Woodhouse, Loughborough.
JOYCE, JOHN HALL	{ Blackfordby, Leicestershire, near Burton-on- Trent.
LAW, EDMUND	St. Giles' Square, Northampton.
LYSTER, THOMAS RICE SOMER- VILLE	{ Bedford Office, Thorney, Peterborough.
MARSON, THOMAS	Higham, Hinckley, and Leicester.
MARTIN, ROBERT FREWIN . . .	Mountsorrel, Loughborough.

MERRY, THOMAS	2, Guildhall Road, Northampton.
MILES, WILLIAM FREDERICK	37, Friar Lane, Leicester.
NORTON, THOMAS HERBERT	Milton Estate Office, Priestgate, Peterborough.
PERKINS, JOSEPH	Laughton, Rugby.
ROLLESTON, JOHN FOWKE } LANCELOT }	Grey Friars, Leicester.
ROLLESTON, WILLIAM GUSTAVUS } STANHOPE }	Grey Friars, Leicester.
RONEY-DOUGAL, JOHN DOUGAL	Castle Ashby, Northampton.
ROYCE, DAVID NEEDHAM	Oakham.
ROYCE, JOHN	Oakham.
SEBASTIAN-SMITH, CHARLES	Friar Lane, Leicester.
SCRIVEN, RICHARD GEORGE	Castle Ashby, Northampton.
THORPE, JOHN	Nailstone, Hinckley.
THORPE, WILLIAM	Nailstone, Hinckley.
WADE, GEORGE TEMPEST	Halford Street, Leicester.
WOOLLEY, WILLIAM EDWARD	Loughborough.

Total, 48 Members.

(J.) CAMBRIDGE, HUNTINGDON, NORFOLK, AND SUFFOLK COMMITTEE.

Chairman.

JOHN CARTER JONAS, 27, Market Place, Cambridge.

ATKINS, SYDNEY GEORGE	The Hall, Coston, Wymondham, Norfolk.
BACON, FRANK MACE	Attleborough, Norfolk.
BACON, HORACE	Attleborough, Norfolk.
BARKER, CALEB	Estate Office, Shadwell, Thetford.
BECK, ARTHUR CLEMENT	Castle Rising, King's Lynn, and Sandringham.
BECK, EDWARD WILLIAM	City Chambers, Norwich.
BECK, FRANK REGINALD	Sandringham.
BIDWELL, CHARLES	Ely, Cambs.
BIRD, JOHN	Brampton, Huntingdon.
BLENCOWE, GEORGE	Bury St. Edmund's.
BOA, ANDREW	Great Thurlow, near Newmarket.
CHALK, HENRY PHILIP	Linton, Cambridgeshire.
COOTE, GEORGE	Smeetham Hall, Sudbury.
DAVEY, JOHN GEORGE ELLIS	Vere Lodge, Raynham, Fakenham, Norfolk.

EDWARDES, CHARLES BIDWELL.	The Precincts, Peterborough.
FALCON, MICHAEL	Horstead House, Norfolk.
FERGUSSON, JAMES	Livermere, Bury St. Edmund's.
FREUER, WILLIAM	West Rudham, Swaffham.
GARRARD, NORTON BURROUGHS.	Cranley Hall, Eye.
GAYFORD, HENRY JOHN . . .	Estate Office, East Raynham, Norfolk.
GAZE, THOMAS WILLIAM . . .	Frenze Hall, Diss, Norfolk.
GRAIN, ARTHUR TRESS. . . .	2, St. Andrew's Hill, Cambridge.
HAWKINS, CHARLES	Downham Market, King's Lynn.
HORNOR, CHARLES JARED . . .	32, Prince of Wales Road, Norwich.
HORNOR, FRANCIS	Queen Street, Norwich.
IRELAND, EDWIN BENJAMIN. .	Guestwick, East Dereham.
JONAS, HARRY MARSHALL . . .	27, Market Place, Cambridge.
LAURANCE, JOHN	Sexton Barns, Peterborough.
LITTLE, WILLIAM CUTLACK. . .	Stag's Holt, March, Cambs.
LOOKER, JOHN	High Street, Huntingdon.
MILLS, SAMUEL MEALING . . .	Orford Hill, Norwich.
MORGAN, BENJAMIN BRAUFORD.	6, Bank Street, Norwich.
MOYÈS, JOHN HELENUS. . . .	26, Trinity Street, Cambridge.
PAIN, JAMES	St. Mary Street, Ely, Cambs.
PELLS, ARTHUR	Beccles and Lowestoft.
PEPPERCORN, JOHN HUTCHINSON	Manor House, Eaton Socon, St. Neot's.
PREEDY, FREDERICK. . . .	Caldecot, St. Neot's.
RIX, GEORGE KERRY	Somerleyton, near Lowestoft.
ROSE, THOMAS	21, Prince of Wales Road, Norwich.
ROWE, RICHARD REYNOLDS. . .	Park House, Cambridge.
SALTER, WILLIAM HERBERT . .	The Hall, Attleborough, Norfolk.
SCOTT, AUGUSTUS FREDERIC . .	24, Castle Meadow, Norwich.
SCOTT, HENRY LACY	Bury St. Edmund's.
SCRUBY, WILLIAM THOMAS . . .	Post Office Terrace, Cambridge.
SIMPSON, ROBERT THOMAS . . .	Horsecroft, Bury St. Edmund's.
SPELMAN, CLEMENT CHARLES RIX	St. Giles' Street, Norwich.
UPCHER, EDWARD BERNERS . . .	Kirby Cane, Norfolk.
WILKIN, HORACE MARTIN . . .	King's Lynn.
WRIGHT, THOMAS	Post Office Terrace, Cambridge.
WRIGHT, WILLIAM EDWARD . . .	King's Lynn.

Total, 51 Members.

(K.) BERKS, BUCKS, AND OXON. COMMITTEE.

Chairman.

FRANCIS HAYWARD FIELD, 11, King Edward Street, Oxford.

ADKIN, CHARLES DUNCAN . . .	Wantage, Berks.
BAKER, JOHN.	High Street, Slough, Bucks.
BINGHAM, ALFRED JOHN . . .	Nalder Hill House, Newbury.
BRUCE, ROBERT KNIGHT . . .	Mentmore Estate Office, Leighton Buzzard.
BUCKLAND, FRANK BOWRY . . .	Windsor.
BUCKLAND, SIDNEY CRAWFORD .	Windsor.
CASTLE, ARTHUR	11, King Edward Street, Oxford.
CASTLE, HAROLD	11, King Edward Street, Oxford.
COOPER, ARTHUR LESLIE . . .	17, Friar Street, Reading.
DAVIS, CHARLES EDWARD . . .	Wroxton Estate Office, near Banbury, Oxon.
DEANE, EDWARD.	148, Friar Street, Reading.
DREWEATT, THOMAS	Newbury, Berks.
EGGINTON, JOHN	150, Friar Street, Reading.
FRANKLIN, THOMAS	Ascott, near Wallingford.
GALE, JOSEPH JOHN	Market Place, Wallingford.
GALPIN, CHARLES ALEXANDER .	36, Pembroke Street, Oxford.
GOTTO, FREDERICK EDWARD. .	Stoney Stratford, Bucks.
GURNEY, JAMES	Chalfont St. Giles, Bucks.
HABGOOD, HENRY CHARLES . .	Witney, Oxon.
HARRISON, JAMES THOMAS . .	Town Hall Offices, Buckingham.
HASLAM, DRYLAND	Friar Street Chambers, Reading.
HASLAM, DRYLAND, JUN. . . .	Friar Street Chambers, Reading
HOLIDAY, FREDERICK DEAN . .	Bicester, Oxford.
JONES, FRANCIS WILLIAM . . .	Ascott, near Wallingford.
KING, JOHN BUSBY	Albert Park, and 14, High Street, Abingdon.
LAWRENCE, ARTHUR	Great Marlow, Bucks.
LIGHTFOOT, HENRY LE BLANC .	Corpus Christi College, Oxford.
LITTLE, WILLIAM DAVIS . . .	Middleton Stoney, Bicester.
MERRY, ARTHUR WALKER . . .	Market Place, Wallingford.
MILLAR, WILLIAM GALT	10, High Street, Reading.
NEATE, ARTHUR WEBB	Albion House, Newbury, and Hungerford.
NORTH, GEORGE FREDERIC . . .	Strathfield Saye, Mortimer, Berks.
NOTTAGE, WILLIAM GRIGGS . .	High Street, Slough, and Windsor.
PETO, JAMES WINDER	6, Market Place, Reading.
RICH, ROBERT	Didcot, Berks.
SAMUEL, WILLIAM JOHN	Newport Pagnell, Bucks.
SCROGGS, WILLIAM	Rectory House, Kidlington, Oxford.
SIMMONS, CHARLES	Henley-on-Thames.

SIMMONS, WILLIAM AUKER . .	Henley-on-Thames.
TODD, RICHARD	Englefield, near Reading.
VERNON, ARTHUR	Borshams, High Wycombe, Bucks.
WIGLEY, GEORGE DAVYS EDWARD	Winslow, Bucks.

Total, 43 Members.

(L.) BEDFORD, ESSEX, HERTFORD, AND MIDDLESEX COMMITTEE.

Chairman.

HON. EDWARD GERALD STRUTT, Whitelands, Hatfield Peverel, Chelmsford, Essex.

AUSTIN, RUSSELL GARDINER . .	Hertford.
AYRES, CHARLES PRYOR	52, High Street, Watford.
BALLS, JAMES MAYHEW	Castle Hedingham, Essex.
BROWN, FRANK JOHN	Tring, Herts.
BURNETT, GEORGE JOHN MUL- CASTER	} Bylands, Redbourn, Herts.
CHANCELLOR, FREDERICK	
CHILD, FRED	1, Station Road, New Barnet, Herts.
CHRISTY, ARCHIBALD ERNEST . .	6, Market Buildings, Chelmsford.
COVERDALE, FREDERICK JOHN . .	Ingatestone Hall, Essex.
CRAWTER, JOHN	Cheshunt, Herts.
CUMBERLAND, EDWARD ANTHONY	Luton and Leighton Buzzard.
DUVALL, JOHN WILLIAM	Hertford.
EVE, HERBERT TRUSTRAM	2, St. Paul's Square, Bedford.
EVE, JOHN RICHARD	St. Paul's Square, Bedford.
FENN, JOHN	{ The Hall, Ardleigh, and 146, High Street, Colchester.
FENNING, HERBERT SAMUEL . . .	
FOULKES, SEPTIMUS GIFFARD . .	Tring, Herts.
HARDING, SIDNEY LONGHURST . .	St. Alban's, Herts.
HASLUCK, LANCELOT GERALD . . .	Green Hill Park, New Barnet, Herts.
HAUGHTON, WILLIAM HOGHTON . .	Highlands, Gt. Barford, St. Neot's.
HERON, WILLIAM CHARLES	Uxbridge, Middlesex.
HILLIARD, GEORGE BRIDGE	Chelmsford.
HILLIARD, GEORGE EDWARD . . .	Chelmsford.
HUNT, THOMAS	Baldock Street, Ware, Herts.
KEMP-SMITH, JAMES FREDERICK	Orsett, Essex.
KEMSLEY, JOSEPH WILLIAM . . .	Corn Exchange, Romford.

NEWMAN, THOMAS HARRY . . .	Rayne, Essex.
NOCKOLDS, MARTIN	Saffron Walden, Essex.
NORMAN, JAMES MAURICE . . .	Uxbridge, Middlesex.
PAISLEY, JOSEPH	Waresley, Sandy, Beds.
PARKER, CHARLES ALFRED . . .	Maldon, Essex.
ROBINSON, NATHANIEL WISHART	Marlowes, Hemel Hempstead, Herts.
RUMBALL, AUBREY	St. Alban's, Herts.
SHILCOCK, JAMES	Hitchin, Herts.
STAFFORD, ROBERT BARRY . . .	83, High Street, Bedford.
STANFORD, CHARLES MAURICE . .	23, High Street, Colchester.
START, JOSEPH WILLIAM	High Street, Colchester.
SURRIDGE, JOSEPH SMITH . . .	Coggeshall, Essex.
SWORDER, HUGH	High Street, Epping.
TAYLOR, EDWARD FERGUSON . .	New Barnet, Herts.
THOMSON, WILLIAM CUNNINGHAM	Estate Office, Luton Hoo, Luton.
THURNALL, JOHN EDWARD . . .	Royston, Herts.
TRETHEWY, HENRY	Silsoe, Ampthill, Beds.
VAIZEY, JOHN GEORGE	Bocking, Braintree, Essex.
WEALL, JOHN	38, High Street, Watford, Herts.
WOODMAN, THOMAS FOSTER . . .	32, St. Peter Street, St. Alban's.
WOODS, THOMAS	4 & 5, Church Parade, Hounslow, Middlesex.

Total, 48 Members.

(M.) DEVON AND CORNWALL COMMITTEE.

Chairman.

HENRY DREW, 15, Queen Street, Exeter.

BAILEY, HARRY DAVID CHINERY	Moretonhampstead, Devon.
BENSON, ROBERT ALAN	Duchy of Cornwall Office, Liskeard.
BODY, ARTHUR	15, Princess Square, Plymouth.
BODY, JOHN BOND	15, Princess Square, Plymouth.
BOURNE, ROBERT ELLIOTT . . .	Elwell, Totnes.
BROWN, GEORGE	Roborough House, Barnstable.
COMMINS, FREDERICK JAMES . .	7, Bedford Circus, Exeter.
COOPER, JOHN GROVES	Bideford.
DREW, HENRY ALBAN	15, Queen Street, Exeter.
DREW, JOHN GOULD	5, Queen Street, Exeter.
DUDLEY, EDGAR	Bedford House, 24, Bedford Street, Plymouth.

DYMOND, FRANCIS WILLIAMS	Exeter.
ELLIOTT, CHARLES	{ George Street, Plymouth, and The Fawns, Ermington, Ivy Bridge.
ELLIS, EDWARD	Bedford Chambers, Exeter.
FOSTER, JOSEPH BURGESS	4, Cambridge Street, Plymouth.
FROST, FREDERIC CORNISH	Teignmouth.
HOLCOMBE, JAMES JOHN	The Fawns, Ermington, Ivybridge.
KITTOW, JOHN	West Holm, Launceston.
LEATHERIDGE, WALTER	1, Leigham Villas, Plymouth.
LOCK, WILLIAM HENRY	Instow.
LOVEYS, ARTHUR CLAMPITT	Moretonhampstead.
MICHELMORE, ALFRED	Berry Pomeroy Estate Office, Totnes.
OSMOND, EDWARD	Oakford, Upton Pyne, Devon.
PARSONS, HENRY JOHN DONNE	Bamfylde House, Exeter.
PEARSE, WILLIAM	Stoliford, Modbury.
PINNEY, JOHN GEORGE	Brooklyn House, Axminster.
RENDELL, ARTHUR STEPHEN	Market Terrace, Newton Abbot.
RUNDLE, EDWARD COLLINS	Bedford Estate Office, Tavistock.
SMYTH-RICHARDS, GEORGE COBLEY	6, Castle Street, Barnstaple.
STAPLEDON, ERNEST ALLEN	Bridge Chambers, Bideford, North Devon.
STOOKE, JAMES	Courtenay Street, Newton Abbot.
SYMONS, PHILIP	Fore Street, Totnes.
TANNER, JOHN MELHUISH	Wembworthy.
THORNE, ARNOLD	Cross Street, Barnstaple.
TROUNSON, JOHN WILLIAM	27, Clarence Street, Penzance.
WARD, DANIEL	8, Courtenay Street, Plymouth.
WARD, FRANK	Burnville, Bridestowe.
WARE, CHARLES EDWIN	Gandy Street Chambers, Exeter.
WHITE, ARTHUR JEFFREY	Wrangaton Manor, Ivybridge, South Devon.
WINDER, GEORGE ALEXANDER	Escot Estate Office, Fairmile, Ottery St. Mary.

Total, 41 Members.

(N.) SOMERSET, GLOUCESTER, AND NORTH WILTS COMMITTEE.

Chairman.

ROBERT FOWLER STURGE, 34, Corn Street, Bristol.

ANDERSON, ROBERT, JUN.	The Barton, Cirencester.
ANDREW, THOMAS HAWKES	Williton, Somerset.
BENNETT, THOMAS OATLEY	Bruton, Somerset.

BISHOP, CHARLES	Regent Circus, Swindon, Wilts.
BRUTON, HENRY WILLIAM . .	Albion Chambers, Gloucester.
DANIEL, HARRY AUGUSTUS HOOD	Keynsham Manor, near Saltford, Somerset.
EDWARDS, ARTHUR PHIPPEN .	Hutton, near Weston-super-Mare.
FARWELL, FREDERICK GEORGE .	11, Laura Place, Bath.
FERRIS, GEORGE	Milton Manor, Pewsey, Wilts.
FOLEY, JOHN HOWARD . . .	Manvers Street, Trowbridge.
HARLE, JOHN JOSEPH . . .	Tortworth Estate Office, Falfield, Gloucester.
HEARD, HERBERT	Shepton Mallet, Somerset.
HEBDITCH, WILLIAM BENJAMIN	Stratton, South Petherton, Ilminster, Somerset.
HIPPISLEY, EDWIN	12, Chamberlain Street, Wells.
HIPPISLEY, EDWIN MAGGS . .	12, Chamberlain Street, Wells.
HIPPISLEY, WILLIAM JOHN . .	12, Chamberlain Street, Wells.
HOLLOWAY, THOMAS	Chippenham, Wilts.
HUSSEY, FRANK TOOZE . . .	The Grove, Cheddon Fitzpaine, Taunton.
JEANS, MARK	Marlborough, Wilts.
KNOWLES, HENRY	Linden Grove, The Spa, Gloucester.
MARSHALL, LIONEL HASLER .	Chippenham, Wilts.
MUNDY, HERBERT	Manvers Street, Trowbridge.
MUNRO, PHILIP	{ 2, St. Stephen's Chambers, New Baldwin Street, Bristol.
MYLNE, WILLIAM JOHN HOME .	Sabrina, Clevedon Road, Weston-super-Mare.
NAPIER, HENRY BURROUGHES .	Chippenham, Wilts.
OAKLEY, EDWARD BENJAMIN .	Dulverton, Parkstone.
OLIPHANT, GEORGE A. J. . .	Chatley House, Norton St. Philip, near Bath.
PARSONS, FRANK DONISTHORPE .	Misterton, Crewkerne.
PARSONS, HENRY	Misterton, Crewkerne.
PARSONS, ROBERT MAURICE } PETERS	Misterton, Crewkerne.
PEARD, JOHN GRIGG	North Curry, near Taunton.
PRITCHETT, ELLIS HERBERT .	Regent Circus, Swindon, Wilts.
RANSFORD, BENJAMIN HERBERT	County Club, Weston-super-Mare, Somerset.
SADLER, GEORGE WILLIAM . .	467, High Street, Cheltenham.
SCAMMELL, THOMAS	14, John Street, Bristol.
SILCOCK, THOMAS BALL . . .	14, Abbey Churchyard, Bath.
SMITH, HENRY HERBERT . . .	Chippenham, Wilts.
SPACKMAN, CHARLES CHANTREY .	6, Terrace Walk, Bath.
SPACKMAN, HENRY	6, Terrace Walk, Bath.
STURGE, WILLIAM	34, Corn Street, Bristol.
THOMAS, JOSIAH	Athenæum Chambers, Nicholas Street, Bristol.
TREPLIN, ERNEST C. . . .	Wastern, Wootton Bassett.
VILLAR, JAMES	1a, Cambray, Cheltenham.
WADDINGTON, JOHN ALLEN . .	Estate Office, Rendcomb Park, Cirencester.
WAINWRIGHT, CHARLES RAWLIN- SON	{ Shepton Mallet.

WALKER, JOSEPH ARTHUR . .	Ashton Court Estate, Long Ashton, Clifton, Bristol.
WATRINS, ROBERT ARUNDEL . .	Castle Combe, Chippenham.
WHATLEY, FREDERICK ERNEST.	Cirencester.
WISE, CHARLES DACRES . . .	Toddington, Winchcomb, Gloucester.
WOOLER, WALTER HERNAMAN .	Waterloo Street, Weston-super-Mare.

Total, 51 Members.

(O.) HAMPSHIRE, DORSET, AND SOUTH WILTS COMMITTEE.

Chairman.

ALBERT EDWARD MARVIN, Mare Hill, Carisbrooke.

ALLEN, GEORGE	Estate Offices, Stalbridge, Dorset.
ARNOLD, FRANCIS	Chilland, Winchester, and Hambledon, Hants.
AUSTIN, RICHARD	Bishop's Waltham, Hants.
AUSTIN, RICHARD, JUN.	Bishop's Waltham, Hants,
BAIRD, JONATHAN PEEL	Estate Office, Somerley, Ringwood, Hants.
BATH, FRED	Crown Chambers, Salisbury.
BIRD, JAMES BINFIELD	West Cowes, Isle of Wight.
BLAKE, FREDERICK	130, Queen Street, Portsea, Hants.
BLIZARD, JOHN HENRY	Lansdowne House, Castle Lane, Southampton.
BURNETT, ALFRED ANDREW	2, High Street, Southampton.
CANNING, WILLIAM BROWNE	Salisbury.
CLIFTON, JAMES EDWARD	Swanage, Dorset.
COCKS, SAMUEL ROGER	5, St. Thomas's Street, Ryde.
COMBES, CYRUS	Tisbury, Wilts.
CRICKMAY, GEORGE RACKSTROW	St. Thomas' Street, Weymouth.
CRICKMAY, JOHN EDWARD	St. Thomas' Street, Weymouth.
DAY, GEORGE CARLETON	Estate Office, Woodbridge, Shaftesbury, Dorset.
DUKE, EDWARD	Dorchester.
DUKE, HENRY, JUN.	Dorchester.
EAMES, EDWARD	Stoke Manor, near Alresford.
ELFORD, JOHN	King Street, Poole.
ELLEN, FREDERICK CHARLES	Andover.
GATER, CALEB WILLIAM	Salisbury.
GUDGEON, GEORGE EDWARD	Estate Agency Offices, Winchester.
HALL, ERNEST	166, Queen Street, Portsea, Hants.
HANKINSON, THOMAS JAMES	Richmond Chambers, Bournemouth.

HANNEN, REGINALD ST. JOHN	The Cottage, Fordingbridge, Salisbury.
HARRIS, JAMES	Winchester.
HAWKER, HARRY EDWIN	St. Peter's Chambers, Bournemouth.
HERBERT, ALLAN	The Market Place, Andover.
HILL, WILLIAM BURROUGH	62, Above Bar, Southampton.
HODGSON, ARTHUR MARRIOTT	4, Albion Place, Southampton.
JURD, WILLIAM	10, Oxford Street, Southampton.
KENT, GEORGE EDWARD	Normanhurst, Cavendish Road, Southsea.
KING, THOMAS	Pembroke House, Portsmouth.
KING, SIR WILLIAM DAVID, D.L.	Stratford Lodge, Southsea.
LANE, ERNEST LACAN	{ 4, Victoria Buildings (Old Christchurch Road), Bournemouth.
LEMON, JAMES	Southampton.
LIVESAY, JOHN GILLET	Cromartie House, Ventnor.
LYWOOD, EDWIN	Norman Court, Clatford, Andover.
MITCHELL, GEORGE SHARMAN	Upper Adhurst, Petersfield, Hants.
NEWMAN, FRANCIS	Ryde, Isle of Wight.
NEWTON, THOMAS EDWIN	45, Jewry Street, Winchester.
PATERSON, CHARLES	Canford, Wimborne, Dorset.
PERKINS, WALTER FRANK	Portswood House, Southampton.
PICKSTOCK, JOHN	Castle Hill, Winchester.
RAWLENCE, ERNEST ALFRED	Newlands, Salisbury.
RAWLENCE, JAMES EDWARD	The Canal, Salisbury.
RAYNBIRD, HUGH EDWARD	Basingstoke, Hants.
REBBECK, EDWARD WISE	Gervis Place, Bournemouth.
REBBECK, THOMAS WARREN	Gervis Place, Bournemouth.
RICHARDS, GEORGE EDWARD	St. John's Hill, Wimborne.
RIDDETT, WILLIAM HAMMOND	Townhall Chambers, Ryde.
RIGDEN, FRANCIS	Salisbury.
RIGDEN, HENRY WILLIAM	Salisbury.
ROBEY, ROBERT	Oaklands, East Tytherley, near Romsey.
ROBINSON, EDMUND ARTHUR	Lee-on-the-Solent, Gosport, Hants.
ROKER, MITCHEL JOHN	Snowdenham, Branksome Park, Bournemouth.
RUTHERFORD, JAMES AUGUSTINE	Highclere Park, near Newbury.
SANCTUARY, CAMPBELL FORTESCUE } STAPLETON	Mangerton, Melpash, Dorset.
SAUNDERS, THEODORE RIDLEY	Belgrave Chambers, Ventnor.
SENIOR, HARRY SAMUEL	Sturminster Newton, Dorset.
SIMMONS, CHARLES FRANKLIN	Basingstoke, Hants.
SMITH, CHARLES BOVILL	Wykeham House, Fareham, Hants.
SMITH, FREDERICK JOHN	{ 21, Portland Street, Southampton, and Basing- stoke.
SMITH, GEORGE ALFRED	78, Parchment Street, Winchester.
SQUAREY, ELIAS PITTS	The Moot, Downton, Salisbury.

SQUAREY, NEWELL WILLIAM PITTS	The Moot, Downton, Salisbury.
STALLARD, ALFRED EDWIN . .	West Street, Havant.
STIRTON, THOMAS	Estate Office, West Stratton Station, Micheldever.
STOPHER, THOMAS	Winchester.
STUDDY, THOMAS EDWARD . .	Estate Office, Basing Park, Alton.
VERNON-INKPEN, GEORGE CHAS.	6, King's Road, Southsea.
WALLINGTON, JOHN ARTHUR BEACH	Basingstoke, Hants.
WALMISLEY, JOSEPH WILLIAM .	7, King's Terrace, Southsea.
WARNER, HENRY	Faringdon, Alton, Hants.
WATERS, EDWARD	The Canal, Salisbury.
WATSON, ALFRED	Braeside, Alum Chine, Bournemouth West.
WAY, HENRY JAMES	{ 109, Lower St. James' Street, Newport, Isle of Wight.
WELLS, WILLIAM HOWLEY . .	Estate Office, Evershot.
WESTBURY, GEORGE HENRY . .	The Knoll, Andover.
WETHERALL, HARRY LANCASTER	Brachlyn, Winchfield.
WILBRAHAM, EDWARD SIDNEY .	Estate Office, St. Giles, Salisbury.
WOOLLEY, JOHN TURTON . .	Salisbury.
YOUNG, CHARLES	Alton, Hants.

Total, 86 Members.

(P.) KENT COMMITTEE.

Chairman.

GEORGE LANGRIDGE, The Broadway, Tunbridge Wells

AMOS, FRANK	1, Parade, Canterbury.
BARTON, HARRY HOWELL . .	17, Guildhall Street, Folkestone.
BRACKETT, ARTHUR WILLIAM .	27, High Street, Tunbridge Wells.
BRACKETT, FREDERICK HENRY .	27, High Street, Tunbridge Wells.
BRACKETT, WILLIAM	27, High Street, Tunbridge Wells.
BURROWS, ALFRED JOHN . .	41, Bank Street, Ashford.
COBB, HERBERT MANSFIELD .	Higham.
COBHAM, CHARLES	The Shrubbery, Gravesend.
COBHAM, GEORGE RADCLIFFE .	1 and 3, Edwin Street, Gravesend.
COBHAM, GEORGE WILLIAM . .	1 and 3, Edwin Street, Gravesend.
COOKE, HENRY	Thong, near Gravesend.
CRONK, EDWYN EVANS . . .	Sevenoaks.

CRONK, FRANK	Sevenoaks.
CRONK, WILLIAM HENRY	Sevenoaks.
DANN, HENRY	Dartford.
DAY, WILLIAM, JUN.	23, High Street, Maidstone.
ELGAR, J. EDWARD	Crockshard, Wingham.
FINN, ADOLPHUS	High Street, Lydd, and Rye.
FINN, ARTHUR GEORGE	The Deanery, Chartham.
FINN, GEORGE WILLIAM	Westwood Court, Faversham.
FREEMAN, SYDNEY	The Broadway, Tunbridge Wells.
FRY, GEORGE FREDERICK	46, London Road, Dover.
HARVEY, JOHN JAMES SAYER	80, Castle Street, Canterbury.
HAYWARD, FREDERICK GEORGE	Dover.
HAYWARD, HENRY	Dover.
HINDS, HENRY	57, Queen Street, Ramsgate.
HOBBS, JOHN	Guinea Hall, Sellinge, near Hythe.
HOMAN, FRANKLIN GEORGE	147, Eastgate, Rochester.
HONEYBALL, FRED. THOMAS	Deal.
JACKSON, WILLIAM TRESS	117, High Street, Sittingbourne.
JENNINGS, WILLIAM JOSEPH	4, St. Margaret's Street, Canterbury.
KERL, WILLIAM JAMES	49, Copers Cope Road, Beckenham.
KIDWELL, JOHN	St. Margaret's Bank, Rochester.
LATTER, HUGH ROBINSON	3, Market Square, Bromley.
LEPPER, JOHN HARRAGE	Town Hall, Bromley.
LUCAS, WILLIAM EDWARD	Bexley.
MANN, JABEZ	Sevenoaks.
NEAME, FREDERICK, JUN.	Macknade, Faversham.
NETHERSOLE, WILLIAM	Deal.
NEVE, HERBERT	Hole Park, Rolvenden.
PAYNE, FREDERICK	Town Hall, Bromley.
PHILLIPS, FREDERICK HAMILTON	12, Belgrave Gardens, Dover.
RAWLINS, WILLIAM	Kent Fire Office, Maidstone.
REID, FRANCIS	Bucksford, Ashford.
ROPER, WILLIAM	3, The Pantiles, Tunbridge Wells.
RUDKIN, ARTHUR JOHN	St. Ann's, Bromley.
SCRIVEN, CHARLES HERBERT	Agency Office, Thong, Gravesend.
SEYMOUR, RICHARD ARTHUR } HAMILTON }	46, Earl Street, Maidstone.
SLATER, GEORGE	Canterbury.
SMITH, GEORGE	Boughton Monchelsea.
TEMPLE, FREDERICK WILSON	27, Sandgate Road, Folkestone.
TOMPSETT, WILLIAM ROBERT	182, High Street, Tonbridge, and Paddcock Wood.
TOOTELL, CHARLES	13, King Street, Maidstone.
TOOTELL, JOSEPH	13, King Street, Maidstone.
WACHER, THOMAS	Upper Bridge Street, Canterbury.

WARING, HERBERT FULLER . . .	46, Earl Street, Maidstone.
WATERMAN, ALFRED JAMES . . .	20, Week Street, Maidstone.
WATERMAN, JAMES	Ashford.
WATERMAN, RICHARD	20, Week Street, Maidstone.
WEBB, GEORGE	Tunstall, Sittingbourne.
WHITE, JOHN	49, London Road, Sevenoaks.
WILKS, RICHARD	Little Mongeham, near Deal.
WOOD, WILLIAM	Cooling Castle, near Rochester.

Total, 64 Members.

(Q.) SUSSEX COMMITTEE.

Chairman.

JAMES WOODHAMS, Havelock Road, Hastings.

AUSTEN, FRANK	Marling Place, Wadhurst.
BANNISTER, THOMAS	Limehurst, Hayward's Heath.
BEARD, EDWIN THOMAS. . . .	Wallsend, Pevensey, Sussex.
BURTENSHAW, ALBERT	Hailsham.
CARD, HENRY CURTIS	North Street, Lewes.
CHASEMORE, PHILIP	Ashleigh, Horsham.
COLGATE, THOMAS	Sheffield Park, Uckfield.
DAVEY, HENRY THOMAS	24, Priory Avenue, Hastings.
DRAY, ALFRED	Town Hall Chambers, Hastings.
HOBGEN, FRANCIS NEALE	East Street, Chichester.
HOBGEN, THOMAS CECIL	East Street, Chichester.
HOWARD, HARRY	17, Clilton Road, Littlehampton.
HUDSON, EDWARD WILLIAM . . .	Hove.
INGRAM, WALTER FIELDE . . .	{ 2, St. Andrew's Place, Lewes, and 17, Preston Street, Brighton.
KING, FRANK HULME	Horsham.
MARTIN, THOMAS	34, Elphinstone Road, Hastings.
MORRIS, HERBERT	Lewes.
PARRIS, CHARLES JOHN	Buckhurst, Tunbridge Wells.
PARSONS, FREDERICK CECIL. . .	163, North Street, and 9, Marine Parade, Brighton.
POWELL, HUBERT JOHN	Hill Lodge, Lewes.
POWELL, REGINALD HENRY . . .	St. Swithun's Lane, Lewes.
QUICK, FREDERICK WILLIAM . .	13, Montpellier Place, Brighton.
REEVE, KINGSNORTH	High Street, Lydd, and Rye.

SMITH, SIDNEY	Southwater, Horsham.
TAYLOR, MATTHEW	Northchapel, Petworth.
TURNER, CHARLES	Oakhurst, East Grinstead.
WATSON, HERBERT EDWARD	New Grove, Petworth.
WELCH, FREDERICK WILLIAM	168, North Street, Brighton, and Hastings.
WILKINSON, THOMAS	168, North Street, Brighton, and Hastings.
WOOD, WILLIAM	Ifield Court, Crawley.
WYATT, OLIVER NEWMAN	East Street, Chichester.

Total, 32 Members.

(R.) NORTH WALES AND RADNOR COMMITTEE.

Chairman.

JOHN EDWARD POUNDLEY, Kerry, Newtown, Montgomeryshire.

ADDIE, WILLIAM FORRESTER	{ Powis Castle Estate Office, Welchpool, Mont- gomeryshire.
CLOUGH, RICHARD CHARLES BUTLER.	{ Ty Maur, Denbigh.
DARLEY, WILLIAM	Llangwm, Corwen, N. Wales.
DEW, WILLIAM ARTHUR	Wellfield House, Bangor.
GILLART, DAVID.	Towyn, Merionethshire.
GRANT, JAMES	Penrallt, Llanidloes, Montgomeryshire.
JONES, WALTER BUTLER CLOUGH	Mynydd, Ednyfed, Criccieth, Carnarvonshire.
JONES, WILLIAM EDWARD	{ Anglesey Estate Office, Craig, Llanfair P.G., Anglesey.
McINTYRE, PETER	Gwydyr Ucha, Llanrwst, N. Wales.
OWEN, WILLIAM SCOTT	Cefngwifed, near Newtown, Montgomeryshire.
PICKERING, WILLIAM CLOVES	Rhewl House, Mostyn, Flintshire.
PORTER, JOHN MERRY	Estate Office, Colwyn Bay, N. Wales.
POWELL, EVAN	Broomcliffe, Llanidloes, Montgomeryshire.
ROBERTS, THOMAS	Portmadoc.
SWETENHAM, HENRY.	Estate Office, Hawarden.
WILLIAMS, JOHN	Gwernhefin, Bala, Merionethshire.
WILLIAMS, STEPHEN WILLIAM	Rhayader, Radnorshire.
WILLIAMS, WILLIAM LLOYD	24, High Street, Carnarvon.

Total, 19 Members.

Local Distribution of Members.

BEDFORDSHIRE.

BEDFORD.

Fellows :—

Eve: Herbert Trustram.
 Eve: John Richard.
 Fenning: Herbert Samuel.
 Stafford: Robert Barry.

Professional Associates :—

Eve: Charles Gerald.
 Weston: Joseph Aurelius.

CARDINGTON.

Professional Associate :—

Bodger: Percy Morris.

Associate :—

Malden: Walter James.

GREAT BARFORD.

Fellow :—

Haughton: William Hoghton.

LUTON.

Fellows :—

Cumberland: Edward Anthony.
 Franklin: Benjamin Belgrove.
 Thomson: William Cunningham.

SILSOE.

Fellow :—

Trethewy: Henry.

WOBURN.

Professional Associate :—

Hall: Chas. Pell.

BERKSHIRE.

ABINGDON.

Fellows :—

Adkin: Charles Duncan.
 King: John Busby.

ASCOTT.

Fellows :—

Franklin: Thomas.
 Jones: Francis William.

BUSCOT.

Professional Associate :—

Crosland: Walter.

COOKHAM-DEAN.

Professional Associate :—

Thompson: Roland O'Brien.

DIDCOT.

Fellow :—

Rich: Robert.

EATON-HASTINGS.

Professional Associate :—

Cambridge: William James.

ENGLEFIELD.

Fellow :—

Todd: Richard.

BERKSHIRE—continued.

HUNGERFORD.

Fellow :—

Neate: Arthur Webb.

MAIDENHEAD.

Professional Associate :—

Tilly: Hubert Douglas.

NEWBURY.

Fellows :—

Bingham: Alfred John.
 Drewatt: Thomas
 Neate: Arthur Webb.

READING.

Fellows :—

Cooper: Arthur Leslie.
 Deane: Edward.
 Egginton: John.
 Haslam: Dryland.
 Haslam: Dryland, Jun.
 Millar: William Galt.
 Peto: James Winder.

Professional Associate :—

Bailey: Louis Hewitt.

STRATHFIELD SAYE.

Fellow :—

North: George Frederic.

WALLINGFORD.

Fellows :—

Gale: Joseph John.
 Merry: Arthur Walker.

Associate :—

Wells: Alfred Dodd.

WANTAGE.

Fellow :—

Adkin: Charles Duncan.

Professional Associate :—

Belcher: Edward John.

WARESLEY.

Fellow :—

Paisley: Joseph.

WINDSOR.

Fellows :—

Buckland: Frank Bowry.
 Buckland: Henry Duneau.
 Buckland: Sidney Crawford.
 Nottage: William Griggs.

WOKINGHAM.

Professional Associate :—

Butler: Albert Ernest.

WOOLHAMPTON.

Professional Associate :—

Colbourn: Henry James.

BUCKINGHAMSHIRE.

BUCKINGHAM.

Fellow :—

Harrison : James Thomas.

Professional Associate :—

Smith : James.

ETON.

Professional Associate :—

Willis : Edward

HIGH WYCOMBE.

*Fellow :—*Vernon : Arthur,
*Member of Council.**Professional Associates :—*

Phillips : William Dearlove.

Raffety : Herbert William.

Associate :—

Clarke : Daniel.

LEIGHTON BUZZARD.

Fellows :—

Bruce : Robert Knight.

Cumberland : Edward Anthony.

MARLOW (GREAT).

Fellow :—

Laurence : Arthur.

NEWPORT PAGNELL.

Fellow :—

Samuel : William John.

SLOUGH.

Fellows :—

Baker : John.

Gurney : James.

Nottage : William Griggs.

STONY STRATFORD.

Fellow :—

Gotto : Frederick Edward.

WINSLOW.

Fellow :—

Wigley : George Davys Edward.

CAMBRIDGESHIRE.

BABRAHAM.

Professional Associate :—

Webb : Frederic Noel.

CAMBRIDGE.

Fellows :—

Grain : Arthur Tress.

Jonas : Harry Marshall.

Jonas : John Carter.

Moyes : John Helenus.

Rowe : Richard Reynolds.

Scruby : William Thomas.

Wright : Thomas.

Professional Associates :—

Gray : Percy William.

Jonas : Samuel Marshall.

Windley : Henry Chadwick.

CAMBRIDGESHIRE—continued.

CHEVELEY.

Professional Associate :—

Garrod : Herbert James.

ELY.

Fellows :—

Bidwell : Charles.

Member of Council.

Pain : James.

Professional Associate :—

Bidwell : John Evans.

LINTON.

Fellow :—

Chalk : Henry Philip.

LITTLEPORT.

Professional Associate :—

Martin : Heber Gambling.

MARCH.

Fellow :—

Little : William Cutlack.

ROYSTON.

Professional Associate :—

Rowley : William Taylor.

CHESHIRE.

ALDFORD.

Professional Associate :—

Wrightson : Robert Garmondsway.

ALTRINCHAM.

Fellow :—

Cocks : Robert.

BIRKENHEAD.

Fellow :—

Mills : William Edward.

Professional Associate :—

Whalley : Frederick Herbert.

CAPESTHORNE.

Fellow :—

Carswell : William.

CHESTER.

Fellows :—

Goddard : Alexander.

Jones : Isaac Matthews.

Whalley : Henry Shaw.

Professional Associate :—

Whalley : Frederick Herbert.

CREWE.

Fellow :—

McCracken : William.

DODDINGTON.

Fellow :—

Loring : John.

DUKINFIELD.

Fellow :—

Pearson : Alfred.

CHESHIRE—*continued.*

ECCLESTON.

Fellow :—

Parker : The Hon. Cecil Thomas

FRODSHAM.

Fellow :—

Linaker : Charles Edward.

HAUGHTON.

Fellow :—

Owen : Richard Newsham.

KNUTSFORD.

Fellow :—

Smith : John Thompson.

MARPLE.

Fellow :—

Hargraves : Stephen.

MERE.

Fellow :—

Stocks : Frederick William.

MOLLINGTON.

Fellow :—

Davies : John.

ROCK FERRY.

Fellow :—

Hall : Charles Edward.

RUNCORN.

Fellow :—

Evans : Charles Lee.

STOCKPORT.

Fellows :—

Brady : Charles Aldis.

Brady : William Hollinshed.

TARPORLEY.

Fellow :—

Scovell : John.

WILMSLOW.

Professional Associate :—

Halkyard : William Redford.

WORLESTON.

Professional Associate :—

Druce : Edric.

CORNWALL.

LAUNCESTON.

Fellow :—

Kittow : John.

Associate :—

Cowland : Christopher Lethbridge.

LISKEARD.

Fellow :—

Benson : Robert Alan.

PENZANCE.

Fellow :—

Trounson : John William.

ST. GERMANS.

Professional Associate :—

Golightly : Charles Hugh.

CUMBERLAND

CARLISLE.

Fellows :—

Hayton : Joseph William.

Hayton : Pattinson.

Heskett : William James.

Richardson : George.

Professional Associate :—

Sale : Arthur Reed.

COCKERMOUTH.

Fellow :—

Clutton : William James.

GREYSOUTHEN.

Professional Associate :—

Watson : Claude Henry.

NETHERBY.

Fellow :—

Bowman : John James.

PENRITH.

Fellows :—

Birkett : Tom.

Heskett : William James.

Hudson : James.

Little : William.

RAVENGLASS.

Fellow :—

Watt : Alexander.

WHITEHAVEN.

Fellow :—

Stanley-Dodgson : Stanley Dickinson.

WORKINGTON.

Fellow :—

Potts : James.

DERBYSHIRE.

ALFRETON.

Fellow :—

Eadley : John William.

BAKEWELL.

Professional Associate :—

Longsdon : Ernest Morewood.

BEAUCHIEF ABBEY.

Fellow :—

Sampson : William.

BRETBY

Professional Associate :—

Campbell : Colin.

BUXTON.

Fellow :—

Hubbersty : Henry Alfred.

CALOW.

Fellow :—

Thorpe : Christopher.

DERBYSHIRE—continued.

CHESTERFIELD.

Fellows:—

Jendwine: William Wynne.
 Margereson: Charles Frederic.
 Martin: Gilson.

DERBY.

Fellows:—

Brailsford: Henry.
 Fuller: Thomas Alfred.
 Murray: Gilbert.
 Parkin: John Robert.
 Shaw: John,

Member of Council.

Shaw: John, Jun.
 Whitton: John William.
 Wright: James.

Professional Associate:—
 McCallum: Peter Service.*Associate:—*

Strutt: The Hon. Frederick.

DUCKMANTON.

Fellow:—

Byron: Augustus William.

HORSLEY.

Professional Associate:—
 Thompson: Frederic Hubert.

SANDIACRE.

Professional Associate:—
 Child: Edmund Herbert.

SHIPLEY.

Fellow:—

Sebastian-Smith: Charles.

SUDBURY.

Fellow:—

Fawkes: Algernon.

WINGERWORTH.

Fellow:—

Barnes: George Frederick.

DEVONSHIRE.

AXMINSTER.

Fellow:—

Pinney: John George.

BARNSTAPLE.

Fellows:—

Brown: George.
 Smyth-Richards: George Copley.
 Thorne: Arnold.

BEERALSTON.

Fellow:—

Ward: Daniel.

BIDEFORD.

Fellows:—

Cooper: John Groves.
 Stapledon: Ernest Allen.

DEVONSHIRE—continued.

BRIDESTOWE.

Fellow:—

Ward: Frank.

BROAD-CLYST.

Associate:—

Acland: Sir Thomas Dyke, Bart.

DEVONPORT.

Professional Associate:—

Venning: Alfred John Meybohn.

Associate:—

Venning: John James Edgcombe.

ERMINGTON.

Fellow:—

Holcombe: James John.

EXETER.

Fellows:—

Commin: Frederick James.
 Drew: Henry,

Member of Council.

Drew: Henry Alban.
 Drew: John Gould.
 Dymond: Francis Williams.
 Ellis: Edward.
 Parsons: Henry John Donne.
 Ware: Charles Edwin.

Professional Associates:—
 Ellis: Albert Edward.
 Lucas: John Archibald.

INSTOW.

Fellow:—

Lock: William Henry.

IVYBRIDGE.

Fellows:—

Elliott: Charles.
 White: Arthur Jeffrey.

MODEBURY.

Fellow:—

Pearse: William.

MORETONHAMSTEAD.

Fellows:—

Bailey: Harry David Chinery.
 Loveys: Arthur Clampitt.

NEWPORT.

Professional Associate:—
 Bowden: John Friendship.

NEWTON ABBOT.

Fellows:—

Rendell: Arthur Stephen.
 Stooke: James.

Professional Associates:—
 Molyneux: Herbert Ernest.
 Watson: Richard.

OKEHAMPTON.

Professional Associate:—

Powell: Charles Reginald Evernden.

OTTERY ST. MARY.

Fellow:—

Winder: George Alexander.

DEVONSHIRE—*continued.*

FAIGNTON.
Professional Associate :—
 Pridham: John Lawrence.

PLYMOUTH.
Fellows :—
 Body: Arthur.
 Body: John Bond.
 Dudley: Edgar.
 Elliott, Chas.
 Foster: Joseph Burgess.
 Lethbridge: Walter.
 Ward: Daniel.

TAVISTOCK.
Fellow :—
 Rundle: Edward Collins.

TEIGNMOUTH.
Fellow :—
 Frost: Frederic Cornish.

TORQUAY.
Professional Associate :—
 Kieser: William Henry Gustav.

TOTNES.
Fellows :—
 Bourne: Robert Elliott.
 Michelmores: Alfred.
 Symons: Philip.
Professional Associate :—
 Stupart: Charles Walter.

UPTON PYNE.
Fellow :—
 Osmond: Edward.

WEMBORTHY.
Fellow :—
 Tanner: James Melhuish.

DORSETSHIRE.

DORCHESTER.
Fellows :—
 Duke: Edward.
 Duke: Henry, Jun.

EVERSHOT.
Fellow :—
 Wells: William Howley.

FONTMELL MAGNA.
Professional Associate :—
 Keep: William Henry.

MELPLASH.
Fellow :—
 Sanctuary: Campbell F. S.

POOLE.
Fellow :—
 Elford: John.

SHAFTESBURY.
Fellow :—
 Day: George Carleton.

STALBRIDGE.
Fellow :—
 Allen: George.

DORSETSHIRE—*continued.*

STURMINSTER-NEWTON.
Fellow :—
 Senior: Harry Samuel.

SWANAGE.
Fellow :—
 Clifton: James Edward.

WEYMOUTH.
Fellows :—
 Crickmay: George Rackstrow.
 Crickmay: John Edward.

WIMBORNE.
Fellows :—
 Paterson: Charles.
 Richards: George Edward.

DURHAM.

BARNARD CASTLE.
Fellow :—
 Wells: Edwin.

BLAYDON-ON-TYNE.
Fellow :—
 Nicholson: Thomas Cooke.

BRANCEPETH.
Fellow :—
 Peirson: Henry Thomas.

CHESTER-LE-STREET.
Fellow :—
 Clark: Nathaniel.

DARLINGTON.
Fellows :—
 Eade: Arthur Willoughby French.
 Minter: William.
 Searth: William T.

DURHAM.
Fellows :—
 Rowlandson: Christopher.
 Wall: George Young.

GATESHEAD-ON-TYNE.
Fellow :—
 Wallace: Henry.

KEVERSTONE.
Fellow :—
 Bainbridge: Robert Stagg.

SEAHAM-HARBOUR.
Fellow :—
 Brydon: Robert.

SHOTLEY BRIDGE.
Fellow :—
 Oliver: Charles Edward.

SPENNYMOOR.
Professional Associate :—
 Lyons: Edward Colville.

DURHAM—*continued*.

STOCKTON-ON-TEES.

*Fellows:—*Curry: Henry John.
Rodham: John.

SUNDERLAND.

*Fellows:—*Green: Robert Couper.
Hedley: John Hunt.
Hedley: Thomas Fenwick.

WINDLESTONE.

Fellow:—

Rudman: Sydney Charles.

ESSEX.

ARDLEIGH.

Fellow:—

Fenn: John.

BRAINTREE.

Fellow:—

Vaizey: John George.

CASTLE HEDINGHAM.

Fellow:—

Balls: James Mayhew.

CHELMSFORD.

*Fellows:—*Chancellor: Frederick.
Christy: Archibald Ernest.
Hilliard: George Bridge.
Hilliard: George Edward.*Professional Associates:—*Jackson: Edward Henry.
Martin: Alfred John.
Phillips: Francis John.
Phillips: George Cawkwell.*Associate:—*

Gepp: Charles Bramston Osborne.

CHIGWELL.

Fellow:—

Savill: Alfred.

COGGESHALL.

Fellow:—

Surridge: Joseph Smith.

COLCHESTER.

*Fellows:—*Fenn: John.
Stanford: Charles Maurice.
Start: Joseph William.*Professional Associates:—*Grimwade: Henry.
Haigh: Thomas Frederick.

CRANHAM.

Professional Associate:—

Ouvry: Peter Arnold.

EPPING.

Fellow:—

Sworder: Hugh.

ESSEX—*continued*.

GRAYS.

Fellow:—

Cobham: Charles.

Professional Associate:—

Waldram: Robert Edward.

HATFIELD PEVEREL.

Fellow:—

Strutt: The Hon. Edward Gerald.

INGATESTONE.

Fellow:—

Coverdale: Frederick John.

MALDON.

Fellow:—

Parker: Charles Alfred.

ORSETT.

Fellow:—

Kemp-Smith: James Frederick.

Professional Associate:—

Carnell: Sydney George.

RAYNE.

Fellow:—

Newman: Thomas Harry.

ROMFORD.

Fellow:—

Kemsley: Joseph William.

SAFFRON WALDEN.

Fellow:—

Nockolds: Martin.

Professional Associates:—

Nockolds: Alfred George.

Nockolds: Martin Charles Hubert.

SOUTHEND-ON-SEA.

Fellow:—

Tapp: Arthur.

WALTHAM-ABBEY.

Fellow:—

Chetwood: Stephen.

WENDEN.

Professional Associate:—

Robinson: Martin Catlin.

WOODFORD.

Fellows:—

Kemsley: Joseph William.

Lee: Philip Shirling.

GLOUCESTERSHIRE.

BRISTOL.

Fellows:—

Munro: Philip.

Scammell: Thomas.

Sturge: Robert Fowler.

Sturge: William.

Past-President.

Thomas: Josiah.

Professional Associates:—

Saise: Alfred John.

Sturge: Theodore.

GLOUCESTERSHIRE—*continued.*

CHELTENHAM.

*Fellows:—*Sadler: George William.
Villar: James.

CIRENCESTER.

*Fellows:—*Anderson: Robert, Jun.
Waddington: John Allen.
Whatley: Frederick Ernest.*Associate:—*

Kinch: Edward.

CLIFTON.

Professional Associate:—

Wood: Ed. Bryan.

FALFIELD.

Fellow:—

Harle: John Joseph.

GLOUCESTER.

*Fellows:—*Bruton: Henry William.
Knowles: Henry.

TODDINGTON.

Fellow:—

Wise: Charles Dacres.

HAMPSHIRE.

ALRESFORD.

Fellow:—

Eames: Edward.

ALTON.

Fellow:—

Studdy: Thomas Edward.

ANDOVER.

*Fellows:—*Ellen: Frederick Charles.
Herbert: Allan.
Westbury: George Henry.*Professional Associate:—*

Hooper: Alfred Frederick.

BASINGSTOKE.

*Fellows:—*Raynbird: Hugh Edward.
Simmons: Charles Franklin.
Simmons: William Anker.
Wallington: John Arthur Beach.

BISHOP'S WALTHAM.

*Fellows:—*Austin: Richard.
Austin: Richard, Jun.

BOURNEMOUTH.

*Fellows:—*Hankinson: Thomas James.
Hawker: Harry Edwin.
Lane: Ernest Lacan.
Rebbeck: Edward Wise.
Rebbeck: Thomas Warren.
Roker: Mitchel John.
Watson: Alfred.HAMPSHIRE—*continued.*

BOURNEMOUTH.

*Professional Associates:—*Adams: Gerald James Frederick.
Hankinson: Francis Henry.
Satchell: Charles.
Wight: Norman.

CARISBROOKE.

Fellow:—

Marvin: Albert Edward.

CHILLAND.

Fellow:—

Arnold: Francis.

CLATFORD.

Fellow:—

Lywood: Edwin.

EAST TYTHERLEY.

Fellow:—

Robey: Robert.

FAREHAM.

Fellow:—

Smith: Charles Bovill.

Professional Associate:—
Wyatt: Archibald.

FARINGDON.

Fellow:—

Warner: Henry.

FORDINGBRIDGE.

Fellow:—

Hannen: Reginald St. John.

GOSPORT.

Fellow:—

Robinson: Edmund Arthur.

HAMBLEDON.

Fellow:—

Arnold: Francis.

HAVANT.

Fellow:—

Stallard: Alfred Edwin.

HIGHCLERE.

Fellow:—

Rutherford: James Augustine.

MICHELDEVER.

Fellow:—

Stirton: Thomas.

MILFORD-ON-SEA.

Fellow:—

Evans-Vaughan: Henry.

NEWPORT.

Fellow:—

Way: Henry James.

PETERSFIELD.

Fellow:—

Mitchell: George Sharman.

HAMPSHIRE—*continued.*

PORTSMOUTH.

Fellow :—

King: Thomas.

Professional Associate :—

Slipper: Henry Herbert.

PORTSEA.

Fellows :—

Blake: Frederick.

Hall: Ernest.

Kent: George Edward.

King: Thomas.

King: Sir William David.

RINGWOOD.

Fellow :—

Baird: Jonathan Peel.

RYDE.

Fellows :—

Cocks: Samuel Roger.

Newman: Francis.

Riddett: William Hammond.

SANDOWN.

Professional Associate :—

Whitby: Herbert Bateson.

SOUTHAMPTON.

Fellows :—

Blizard: John Henry.

Burnett: Alfred Andrew.

Hill: William Burrough.

Hodgson: Arthur Marriott.

Jurd: William.

Lemon: James.

Perkins: Walter Frank.

Smith: Frederick John.

SOUTHSEA.

Fellows :—

Kent: George Edward.

King: Sir William David, D.L.

Vernon-Inkpen: George Charles

Walmisley: Joseph William.

UPTON GRAY.

Associate :—

Seth-Smith: Frederick.

VENTNOR.

Fellow :—

Livesay: John Gillett.

Saunders: Theodore Ridley.

WEST COWES.

Fellow :—

Bird: James Binfield.

WINCHESTER.

Fellows :—

Gudgeon: George Edward.

Harris: James.

Newton: Thomas Edwin.

Pickstock: John.

Stopher: Thomas.

WINCHFIELD.

Fellow :—

Wetherall: Harry Lancaster.

HEREFORDSHIRE.

BROMYARD.

Fellow :—

Millyard: John William.

HEREFORD.

Fellows :—

Apperley: William Havard.

Brown: John Powles.

Godsell: George Herbert.

Haywood: Henry.

Haywood: William Matthews.

Parker: John.

Professional Associates :—

Hewitt: William.

Sawyer: John Ashton.

LEDBURY.

Fellow :—

Madge: John.

HERTFORDSHIRE.

BARKWAY.

Professional Associate :—

Balding: Albert.

CHESHUNT.

Fellows :—

Crawter: John.

Crawter: John, Jun.

Debenham: Frank Gissing.

HEMEL HEMPSTEAD.

Fellow :—

Robinson: Nathaniel Wishart.

Professional Associate :—

Finch: Clement Robert.

HERTFORD.

Fellows :—

Austin: Russell Gardiner.

Norris: Walter Henry.

HITCHIN.

Fellow :—

Shilcock: James.

MUCH HADHAM.

Associate :—

Gayton: Charles.

NEW BARNET.

Fellows :—

Child: Fred.

Hasluck: Lancelot Gerald.

Taylor: Edward Fergusson.

REDBOURN.

Fellow :—

Barnett: George John Mulcaster.

ROYSTON.

Fellow :—

Thurnall: John Edward.

HERTFORDSHIRE—continued.

SAWBRIDGEWORTH.

Professional Associate :—
Crawley: William Jeeves.

ST. ALBANS.

Fellows :—
Harding: Sidney Longhurst.
Low: Robert John.
Rumball: Aubrey.
Woodman: Thomas Foster.

Professional Associate :—
Whitaker: Ernest Victor.

TRING.

Fellows :—
Brown: Arthur Macdonald.
Brown: Frank John.
Foulkes: Septimus Giffard.

WARE.

Fellows :—
Duvall: John William.
Hunt: Thomas.

WATFORD.

Fellows :—
Ayres: Charles Pryor.
Pridmore: Albert Edward.
Weall: John.

Professional Associates :—
Brown: William Edward.
Sedgwick: Rupert William.

Associate :—
Thomas: Hubert.

HUNTINGDONSHIRE.

BRAMPTON.

Fellow :—
Bird: John.

CALDECOTE.

Fellow :—
Preedy: Frederic.

HUNTINGDON.

Fellows :—
Looker: John.
Purves: Peter.

Associate :—
Veasey: Thomas Frederick.

ST. NEOTS.

Fellow :—
Peppercorn: John Hutchinson.

KENT.

ASHFORD.

Fellows :—
Burrows: Alfred John.
Reid: Francis.
Waterman: James.
Professional Associate :—
Brown: Alexander.

KENT—continued.

BECKENHAM.

Fellow :—
Kerl: William James.
Professional Associates :—
Ovenden: Charles.
Pearson: Howard.

BEXLEY.

Fellow :—
Lucas: William Edward.

BOUGHTON-MONCHELSEA.

Fellow :—
Smith: George.

BROMLEY.

Fellows :—
Latter: Hugh Robinson.
Lepper: John Harrage.
Payne: Frederick.
Rudkin: Arthur John.
Professional Associate :—
Cregeen: Hugh Stowell, Jun.

CANTERBURY.

Fellows :—
Amos: Frank.
Harvey: John James Sayer.
Jennings: William Joseph.
Slater: George.
Wacher: Thomas.
Professional Associate :—
Blunt: Herbert Arthur Scawen.

CHARTHAM.

Fellow :—
Finn: Arthur George.

COOLING.

Fellow :—
Wood: William.

DARTFORD.

Fellow :—
Dann: Henry.
Professional Associates :—
Prall: Herbert Alexander.
Prall: Herbert Edward.

DEAL.

Fellows :—
Honeyball: Fred Thomas.
Nethersole: William.

DOVER.

Fellows :—
Fry: George Frederick.
Hayward: Frederick George.
Hayward: Henry.
Phillips: Frederick Hamilton.
Walmisley: Arthur Thomas.
Professional Associate :—
Grover: Philip Gordon.

FAVERSHAM.

Fellows :—
Finn: George William.
Neame: Frederick, Jun.

KENT—continued.

FOLKESTONE.

Fellows :—

Barton: Harry Howell.
Temple: Frederick Wilson.

GRAVESEND.

Fellows :—

Cobham: Charles.
Cobham: George Radcliffe.
Cobham: George William.

HIGHAM.

Fellow :—

Cobb: Herbert Mansfield.

HYTHE.

Professional Associate :—

Wilks: Ernest Stringer.

IGHTHAM.

Associate :—

Luard: Major-Gen. Chas. Edw., R.E.

LINTON.

Professional Associates :—

Champiou: Percy Morris.
Edmonds: John.

LITTLE MONGEHAM.

Fellow :—

Wilks: Richard.

LYDD.

Fellows :—

Finn: Adolphus.
Reeve: Kingsnorth.

MAIDSTONE.

Fellows :—

Day: William, Jun.
Rawlins: William.
Seymour: Richard Arthur Hamilton.
Tootell: Charles.
Tootell: Joseph.
Waring: Herbert Fuller.
Waterman: Albert James.
Waterman: Richard.
Professional Associates :—
Green: Thomas John.
Page: Stanley Hatch.

MURSTON.

Professional Associate :—

Jarrett: Thomas William.

PADDOCK WOOD.

Fellow :—

Tompsett: William Robert.

RAMSGATE.

Fellow :—

Hinds: Henry.

ROCHESTER.

Fellows :—

Homan: Franklin George.
Kidwell: John.
Professional Associate :—
Homan: Hubert Franklin.

ROLVENDEN.

Fellow :—

Neve: Herbert.

KENT—continued.

SELLINGE.

Fellow :—

Hobbs: John.

SEVENOAKS.

Fellows :—

Cronk: Edwyn Evans.
Cronk: Frank.
Cronk: William Henry.
Mann, Jabez.
White, John.

Professional Associates :—

Finn: Fred.
Neighbour: Charles Edmund.

SIDCUP.

Fellow :—

Snelling: Henry.

SITTINGBOURNE.

Fellows :—

Jackson: William Tress.
Webb: George.

Professional Associates :—

Cowper: Richard William.
Elgar: Walter Robinson.

SWANLEY.

Professional Associate :—

Hooper: Cecil Henry.

THONG.

Fellows :—

Cooke: Henry.
Scriven: Charles Herbert.

TUNBRIDGE.

Fellow :—

Tompsett: William Robert.
Professional Associate :—
Sturgess: John Moore.

TUNBRIDGE WELLS.

Fellows :—

Brackett: Arthur William.
Brackett: Frederick Henry.
Brackett: William.
Freeman: Sydney.
Langridge: George.

Member of Council.

Parris: Charles John.
Roper: William.

Professional Associate :—

Killick: Anthony Edward.

WINGHAM.

Fellow :—

Elgar: J. Edward.

WYE.

Professional Associates :—

Monson: Henry John.
Smith: Frank Braybrooke.

LANCASHIRE.

ASHTON-UNDER-LYNE.

Fellow :—

Holmes: James.
Professional Associate :—
Hodgkinson: James Henry.

LANCASHIRE—*continued.*

BAMBER BRIDGE.

Professional Associate :—
Dixon : Francis Edward.

BLACKBURN.

Fellows :—
Bertwistle : James.
Gradwell : Arthur Richard.
Holt : George Henry.
Robinson : George Edward.

BOLTON.

Fellow :—
Thompson : Francis William.

BOLTON-LE-MOORS.

Professional Associate :—
Collyer : Daniel William.

BURNLEY.

Professional Associate :—
Wilson : James Calvert.

BURY.

Fellows :—
Cartwright : Joshua.
Hopkinson : Alfred.
Nuttall : Thomas.
Professional Associate :—
Kay : Walter Robert.

CLAYTON-LE-MOORS.

Fellow :—
Fletcher : Thomas.

CLITHEROE.

Fellow :—
Parmeter : Frank.

DIDSBURY.

Fellow :—
Meade : Thomas de Courcy.

FULWOOD.

Fellow :—
Nevett : Francis Walter.

LANCASTER.

Fellows :—
Dawson : Edward Howard.
Roper : John Simpson.

LEIGH.

Fellow :—
Fairclough : William.
Professional Associate :—
Selby : John Basely.

LIVERPOOL.

Fellows :—
Beekwith : Henry Langton.
Hartley : Henry.
Kirby : Edmund.
Lancaster : Charles Holland.
Lain : Coard Squarey.
Price : John.
Thomas : Glegge.
Wainwright : Thomas Taylor,
Member of Council.
Wrennail : William.
Young : Edward Herbert.
Young : Oswald William.
Associate :—
King : William.

LANCASHIRE—*continued.*LYTHAM. *Fellows* :—

Fair : James Stretton.
Fair : Thomas.
Rea : John Marcus Beaumont.

MANCHESTER.

Fellows :—
Bancroft : Frederick Herbert.
Bancroft : Henry.
Banks : Thomas.
Batey : Henry Simpson.
Bowden : John.
Brady : Ralph Hollinshed
Bridgford : Ernest James.
Bridgford : Col. Robert, C.B.
Corbett : Christopher.
Cross : John.
Cross : William Haslam.
Dorning : Arthur Harry.
Dorning : Elias.
Eagle : William.
Earle : Thomas Algernon.
Earnshaw : Jacob.
Eastham : James Cook.
Fairclough : William.
Fowler : Henry.
Holden : John.
Hurrell : John Weymouth.
Jackson : Charles.
Larmuth : George Horatio.
Maxwell : Francis William.
Meller : William Galloway.
Pierson : Charles.
Raby : Joseph Walker.
Radford : William.
Radford : William Harold.
Shelmerdine : Henry.
Taylor : Thomas Walters.
Watts : Samuel Lingard.
Watts : William John.
Wilson : Thomas Silk.
Wilson : William Henry.
Professional Associates :—
Blundell : Harry.
Bowden : Ernest Newton.
Bradshaw : Harry Greaves.
Bridgford : Leo Appleton.
Squire : Gerald Robert.
Wallis : John David.
Wilson : William Edward.

PATRICROFT.

Fellow :—
Ellis : Francis, Jun.

PRESTON. *Fellows* :—

Addie : Peter.
Birch : Walter de Hoghton.
Fair : Jacob Wilson,
Member of Council.
Fair : James Stretton.
Fletcher : Thomas.
Johnston : Walter Henry.
Myres : John James.
Nevett : Francis Walter.
Nevett : Thomas.
Park : Philip Samuel.
Park : William Philip.
Rea : John Marcus Beaumont
Veevers : Richard.

ROCHDALE.

Fellow :—
Brocklebank : John.

LANCASHIRE—continued.

SCORTON.

Fellow :—
Bailey : Leonard.

SILVERDALE.

Professional Associate :—
Pain : George Lloyd.

SOUTHPORT.

Fellows :—
Barrow : Thomas Robert.
Wolfenden : Thomas.

ST. HELEN'S.

Fellows :—
Campbell : Henry Hunter.
Hanson : Amos.
Young : Harry Austin Lindsay.

TODMORDEN.

Fellows :—
Brocklebank : John.
Suthers : James.

WARRINGTON.

Fellows :—
MacIver : Colin.
White : John.

WIGAN.

Fellow :—
Fair : Jacob Wilson.

LEICESTERSHIRE.

ASHEY-DE-LA-ZOUCH.

Fellows :—
Bevan : Septimus.
German : George.
German : Harry.
German : John.
Professional Associates :—
German : George, Jun.
Joyce : Harry Ward.

BLABY.

Fellow :—
Hincks : Henry Thorp.

BLACKFORDBY.

Fellow :—
Joyce : John Hall.

HINCKLEY.

Fellows :—
Marson : Thomas.
Thorpe : William.

KIRBY MUXLOE.

Professional Associate :—
Beasley : John Arthur Llewellyn.

LICESTER.

Fellows :—
Clare : Edward Lovell.
Clough-Taylor : Horace George.
Draper : Arthur Thomas.
Everard : John Brendon.

LEICESTERSHIRE—continued.

LEICESTER.

Fellows :—
Goddard : Joseph.
Goodacre : John.
Goodacre : Robert Johnson.
Hampton : Willie Thomas.
Marson : Thomas.
Miles : William Frederick.
Rolleston : John Fowke Lancelot,
Member of Council.
Rolleston : Wm. Gustavus Stanhope.
Sebastian-Smith : Charles.
Wade : George Tempest.
Professional Associates :—
Davis : Neville Brookes.
Robinson : Alfred Whitmore.

LOUGHBOROUGH.

Fellows :—
German : Harry.
Hodson : George.
Woolley : William Edward.
Professional Associate :—
Holbeche : Æmilian Henry.

LAUGHTON.

Fellow :—
Perkins : Joseph.

MARKET HARBOROUGH.

Fellows :—
Coales : Herbert George.
Fisher : Charles Browning.
Fisher : Edward Knapp.
Holloway : Harry Hownam.

MOUNTSORREL.

Fellow :—
Martin : Robert Frewen.

NAILSTONE.

Fellow :—
Thorpe : John.

WOODHOUSE.

Fellows :—
Humphreys : Henry.
Humphreys : John Henry.

LINCOLNSHIRE.

ALFORD.

Fellow :—
Higgins : Frederic.

BOSTON.

Fellow :—
Hawley : Henry Michael.

BRATTLEBY.

Professional Associate :—
Wright : Philip Chetwood.

BROCKLESBY.

Fellow :—
Tindall : Charles William.

CAYTHORPE.

Fellow :—
Crofts : Ewan Nevile.

LINCOLNSHIRE—continued.

GRANTHAM.

Fellow :—

Manner : Henry Alfred.

Associate :—

Scott : The Hon. Henry Robert.

HOLBEACH.

Fellow :—

Abbott : William.

HORKSTOW.

Fellow :—

Turton : Edward James.

LINCOLN.

Fellows :—

Legard : Digby Charles.

Woolley : Reginald.

LOUTH.

Fellow :—

Mason : Charles.

METHERINGHAM.

Fellow :—

Gilpin-Brown : William Dundas.

SPALDING.

Fellow :—

Kingston : Samuel.

STAMFORD.

Fellows :—

Corby : Joseph Boothroyd.

Richardson : Charles.

Richardson : James.

Woodforde : Lionel Burnet.

WAINFLEET.

Fellows :—

Martin : Walter.

Walker : George Booth.

LONDON AND NEIGHBOURHOOD.

Fellows :—

Abbott : William.

Abrams : Benjamin Percy.

Adams : Henry.

Adkin : Benaiah Whitley.

Allport : William.

Andrews : John.

Anscombe : Ernest.

Ansell : Walter Raymond.

Arding : Charles Bennett.

Ault : Edwin.

Badoock : Philip.

Ball : William Alfred.

Ballantine : Edwin.

Barfield : Frederic Henry.

Barker : Horace Richard.

Barnes-Williams : Thomas.

Barratt : Frederick William.

Barry : Charles.

Barry : Dennett Heber.

LONDON AND NEIGHBOURHOOD—continued.

Fellows :—

Bate : Thomas.

Batstone : Rowland Robert.

Battam : Frederick Thomas.

Batterbury : Thomas.

Battling : Walter.

Baxter : George.

Beale : Robert John.

Beauchamp : Charles Davie.

Bedells : Charles Herbert.

Bedells : Charles King.

Beeston : Frederick.

Beken : George.

Beken : Walter.

Benningfield : Henry.

Bickerton : George Arthur.

Bingham : Alfred John.

Bingham : Frederick Henry.

Bingham : Reuben.

Bird : James Binfield.

Bird : Walter.

Blackbourn : Henry.

Blackford : Arthur.

Blake : William John, Jun.

Blakemore : William Agutter.

Blashill : Thomas.

Blewitt : Edward Robert.

Blyton : George.

Bolam : Charles Godfrey.

Bolden : John Leonard.

Bond : Douglas Vele.

Bonny : James Rippoth.

Booker : Algernon Erskine.

Boulting : Frederick Edward.

Bowdich : Henry.

Bowdich : John.

Boyd : John Jermyn.

Boyes : Henry Cowell.

Bradford : Walter.

Bray : Harry.

Breach : Benjamin P'Anson.

Brereton : Franc Sadleir.

Brereton : Thos Bloomfield Sadleir.

Brewer : Frank John.

Briant : Robert.

Bridgewater : Bentley James.

Brinsley : George.

Brooks : Charles William.

Brown : Alexander Burnett.

Brown : Brad-haw.

Brown : Daniel Johnson.

Brown : George James.

Brown : William Blumfield.

Browne : Flint.

Buckland : Alfred Virgoe.

Buckland : Henry Duneau.

Bull : Alfred Edwin.

Bull : Walter.

Burchell : Sidney Herbert.

Burmester : John William Stanley.

Burnett : David.

Burroughes : Thomas Henry.

Bushell : Henry.

Buzzard : Alfred Lindsey.

Byron : Augustus Wm.

Cable : James M.

Cæsar : Charles Edward.

Carew : John Theodore.

Carritt : Ernest.

Carpenter : Evan George.

Cartwright : Sir Henry Edward.

LONDON AND NEIGHBOURHOOD—continued.

Fellows:—

Castell: Charles Smith.
 Castle: Henry James.
 Castle: Sydney Charles Courtenay.
 Castle: William Henry Baldwin.
 Cates: Arthur.
 Chancellor: Frederick.
 Chapman: Henry James.
 Charles: Richard Stafford.
 Chattell: David James.
 Chatterton: George.
 Chesterton: Edward.
 Chesterton: Sidney Rawlins.
 Cheston: Chester.
 Cheston: Horace.
 Chew: Henry Victor.
 Child: Fred.
 Chinnock: Frederick George.
 Christy: Archibald Ernest.
 Clark: Samuel.
 Clarke: George Ernest.
 Clarke: Howard Chatfield.
 Clarke: Percy Henry.
 Clarke: Stanley.
 Clarkson: John.
 Clarkson: William.
 Clifton: William Edward.
 Clutton: John.
Past-President.
 Clutton: John Henry.
 Clutton: Ralph.
 Clutton: Robert George.
Member of Council.
 Cobb: Herbert Mansfield.
 Collier: Richard James.
 Collier: Walter Henry.
 Collingham: John Cyril Lees.
 Collins: Henry Hyman.
 Collins: Marcus E.
 Coltman: Walter John.
 Colyer: Frederick.
 Conder: Alfred.
 Cooper: George Warren.
 Cooper: John Robert.
 Cope: Henry James.
 Corderoy: Athelstane.
 Corderoy: George.
 Coulson: William Lindsay.
 Coverdale: Henry.
 Cranfield: William Bathgate.
 Crawter: John, Jun.
 Crickmay: George Rackstrow.
 Crockett: Edwin Arthur Brassey.
 Cronk: Edwyn Evans.
 Cronk: Frank.
 Cross: William Stephens.
 Cruwys: Robert.
 Currey: Henry.
 Currey: Percivall.
 Curtis: Charles Edward.
 Curtis: Robert Leabon.
 Curtis: Samuel Perkins.
 Cuxson: George Austin Pryce.

Dallas: Edwin Stuart.
 Darch: John.
 Dash: Roland Ashford.
 Davis: David Thomas.
 Davies: George Humphreys.
 Davies: Walter.
 Davis: Charles James.
 Davis: Frederick William.
 Davis: James.

LONDON AND NEIGHBOURHOOD—continued.

Fellows:—

Daw: William Herbert.
 Dawson: John George.
 Dawson: Percy John.
 Deacon: Thomas Mark.
 Dearle: William Henry.
 Debenham: Frank Bridgewater.
 Debenham: Frank Gissing.
 Debenham: Horace Bentley.
 Dendy: William Cooper.
 Dennison: John William.
 Dinwiddy: Thomas.
 Doll: Charles Fitzroy.
 Dollar: Peter.
 Done: John James.
 Dowden: Henry Joseph.
 Downing: Frederick.
 Downing: Henry Philip Burke.
 Dowsett: Charles Finch.
 Driver: Charles William.
 Driver: Robert Collier.
Past-President.
 Driver: Robert Manning.
 Drury: Edward Dru.
 Duncan: James Morison.
 Dunch: Charles.
 Dunlop: Alexander Milne.
Vice-President.
 Dunn: William Henry.
 Dyball: Harvey.
 Dyer: William John.
 Eales: Frederick Ernest.
 Eagland: William Francis.
 Edmeston: James.
 Egerton: Hubert Decimus.
 Eiloart: Frederick Edward.
 Eldridge: Herbert.
 Elgood: Frank Minshall.
 Ellis: Frederick.
 Ellis: Henry.
 Ellis: Herbert Moates.
 Ellis: Ralph Staples.
 Ellis: Richard Adam.
 Ellis: Sir John Whittaker, Bart., M.P.
 Ellis: William Alfred.
 Elwell: William Henry.
 Emmanuel: Barrow.
 Evans: George.
 Eve: William.
 Eves: William Lionel.
 Farmer: Edmund.
 Farnan: Henry Richard.
 Farrar: Sidney Howard.
 Farthing: Walter Thomas.
 Field: James Frederick.
 Fleetwood: George.
 Flint: William Hurst.
 Ford: Lawton Robert.
 Ford: Solomon.
 Foster: Charles Rolls.
 Foster: Frank.
 Foster: Henry Edwin.
 Fowler: Sydney.
 Fox: Edwin.
 Frampton: Alfred.
 Francis: George Futvoye.
 Francis: Leon Albert.
 Franklin: Arthur.
 Franklin: Thomas Frederick.
 Freeman: Sydney.

LONDON AND NEIGHBOURHOOD—continued.

Fellows :—

Fuller: Ernest.
 Fuller: Harry.
 Fuller: Herbert Henry.
 Furber: Herbert.
 Furber: William.

Gairdner: Edward James.
 Gale: Arthur John.
 Gale: Ernest Sewell.
 Galsworthy: Frederick Thomas,
Member of Council.
 Gamble: Sidney Gompertz.
 Gandy: James.
 Gardiner: Edward James.
 Gardiner: William James.
 Garrard: Arthur,
Member of Council.
 Garrood: Thomas William M.
 Gate: Alfred Joseph.
 Gibbon: William Jacob.
 Giddy: Osman Horton.
 Gilbert: William Henry Sainsbury.
 Girdwood: James.
 Glasier: George Henry Brougham.
 Gleed: Richard Cummings.
 Goddard: Joseph.
 Goldsmith: William.
 Goodchild: Josiah.
 Goodwyn: Leonard William.
 Gore: Spencer W.
 Goulding: William Purdham.
 Gouldsmith: George Waller.
 Gover: Arthur Sutton.
 Gover: John Richard.
 Graves: Walter.
 Green: Alexander Ernest.
 Green: James.
 Green: Samuel.
 Green: Thomas Thornton.
 Grellier: Harley Mair.
 Griffin: Harold.
 Griggs: Robert.
 Grogan: Hedworth Herbert.
 Grose: Vincent John.
 Grover: Arthur.
 Gruning: Edward Augustus.
 Gwyther: William Warlow.

Hackford: George.
 Haddock: Roland.
 Hale: Raymond Henry.
 Hall: John George.
 Hall: Walter.
 Hallett: William Brown.
 Hamilton: John.
 Hancock: William St. John Hü.
 Hansell: Reginald Goddard.
 Harcastle: Fredk. Henry Appleton.
 Harding: Edward Ernest.
 Harland: Marchant James.
 Harrington: George Frederick.
 Harrison: Richard Creese.
 Harston: Arthur.
 Hart: William Frederick.
 Harvey: Frederick Henry.
 Haskins: William Albion.
 Head: John George.
 Heath: Henry.
 Heelis: William.
 Henderson: Henry Arthur.
 Heron: William Charles.

LONDON AND NEIGHBOURHOOD—continued.

Fellows :—

Herring: William Arthur Warwick.
 Hickson: Stephen Westby.
 Higgins: George.
 Hilton: John.
 Hine: George Ernest.
 Hine: George Thomas.
 Hobson: Frederick William.
 Hodge: Leonard Percival.
 Hodson: George.
 Hodson: William.
 Holcombe: Walter.
 Holdsworth: Frederick Henry.
 Holland: Thomas James, Jun.
 Hollingsworth: Arthur Augustus.
 Holman: George Edward.
 Holmes: Montagu.
 Hood: Hon. Victor Albert Nelson.
 Hope: William Elliott.
 Hopkins: Alfred James.
 Horne: Edmund.
 Horne: William Edgar.
 Horsey: Frederick.
 Horsey: Frederick John Terry.
 Houghton: Frederick.
 Houghton: John Pounds.
 Houghton: William.
 Hovenden: Henry Edward.
 Hudson: Arthur Byrne.
 Hudson: Edward William.
 Hudson: William.
 Hugman: Charles Eady.
 Hull: Charles.
 Humphreys: Charles.
 Hunt: Frederick Cope.
 Hunt: Frederick William H.
 Hunt: Henry Arthur.
 Hunt: Josiah.
 Hunter: Cecil.
 Huxley: Walter Freeman.

I'Anson: Edward Blakeway.
 Ingram: Henry Law.
 Inman: Marshall Nisbet.
 Inman: William Nutter.
 Innes: Gilbert Plantagenet Mitchell.

Jackson: Frederick William.
 Jenkinson: William Wilberforce.
 Johnson: Henry.
 Jonas: Henry.
 Jones: Charles.
 Jones: Charles Frederick.
 Jones: Frederick Herbert.
 Jones: Henry Arthur.
 Jones: Thomas.
 Jopling: Joseph.
 Joseph: Delissa.

Kedgley: Charles.
 Keirle: Robert.
 Kennedy: James.
 Kerl: William James.
 Kersey: Alexander Henry.
 King: Alfred.
 Koch: John Godfrey.

Lacey: John Turk.
 Lambert: Godfrey Charles.
 Lambert: William.
 Lang: Charles Augustus.
 Laurance: Walter.
 Lawrence: William Robert.

LONDON AND NEIGHBOURHOOD—continued.

Fellows:—

Leane: George Henry.
 Leaning: Henry John.
 Leaning: John.
 Lee: Charles William.
 Lee: Frederick.
 Lee: John Wilfrid.
 Lee: Philip Shirling.
 Lee: Sydney Williams.
 Leonard: Henry Holmes.
 Le Rossignol: Francis.
 Letts: Thomas Hollins.
 Lightfoot: Francis Lowry.
 Lines: Richard Samuel.
 Littlewood: Lionel.
 Lloyd: George Hamilton.
 Lookyer: Gilbert Edward.
 Lofts: Henry.
 Lofts: Henry Fairlam.
 Lovegrove: Henry.
 Low: Robert John.
 Lowe: Charles Harlowe.
 MacCallum: Alexander Duncan.
 McKie: Hugh Unsworth.
 Mallett: William Robert.
 Mann: Charles John.
 Mann: James Bagshaw.
 Mann: Robert Bagshaw.
 Marks: Hyman.
 Marr: James.
 Marriott: George Wharton.
 Martin: George Dennis.
 Martin: Howard.
 Martin: Thomas.
 Masterman: George Hughes.
 Mathews: Joseph Douglas.
 Matthews: William.
 Mellenfield: James Henry.
 Mellor: Thomas Henry.
 Messenger: Henry.
 Middleton: Reginald Empson.
 Migotti: Alphonzo.
 Millar: Charles William.
 Millard: Edward.
 Mixer: Edward.
 Monckton: Henry Percival.
 Monier-Williams: Stanley Faithful.
 Montagu: Henry Havelock.
 Moody: Thomas.
 Moore: Alfred.
 Moore: Harold Edward.
 Morris: George Field.
 Morris: Harold George.
 Morris: Richard Percival.
 Mould: Graham Harley.
 Muller: John Joseph.
 Mundy: Thomas Edward.
 Murray: William.

Neale: George James.
 New: Edward Vorley.
 Newman: Arthur Harrison.
 Newman: Charles Henry.
 Newman: Samuel Frank.
 Newmarch: Henry Charles.
 Newson: Harry Carrs.
 Nichols: Daniel Cubitt,
Member of Council.
 Nicholson: Anselm.
 Nicholson: William Abernethy.
 Norman: James Maurice.
 Norman: William Horace.

LONDON AND NEIGHBOURHOOD—continued.

Fellows:—

North: George.
 Northcroft: Henry.
 Notley: Richard Albert.
 Notley: Robert Pledge.
 Oakley: Christopher,
Vice-President.
 Oakley: Christopher Percival.
 Oakley: John Hubert.
 Ogden: Michael Guy.
 Orgill: John Berwick.
 Orr: Cecil.
 Page: Robert.
 Pain: Coard Squarey.
 Pain: William.
 Paine: Edward Jabez.
 Parker: Charles Alfred.
 Parker: Stanley.
 Parnacott: Alfred.
 Parr: Samuel.
 Parr: Samuel George.
 Parry: Richard.
 Paull: Alan.
 Payne: Alexander.
 Peck: William Roland.
 Penfold: John Wornham,
Honorary Secretary.
 Perriam: Alfred Joseph.
 Pether: Harry.
 Pilditch: Philip Edward.
 Pinks: Edwin Charles.
 Poston: Henry.
 Potter: Herbert George.
 Powell: Frederick Atkinson.
 Preston: Samuel David.
 Price: Thomas William.
 Pridmore: Albert Edward.
 Pridmore: Arthur Stirling.
 Protheroe: William Henry.
 Purchase: Edward Keynes.
 Purves: Peter.
 Ransom: Thomas Robert.
 Rawlins: Henry Adair.
 Read: George Huntly.
 Reddall: David Gadsden.
 Rees: William Andrew.
 Reid: Patrick Sandeman.
 Rex: Francis Herbert.
 Rex: William.
 Richards: Alfred.
 Richards: Henry.
 Richards: Henry Brinley.
 Richards: Thomas Robert.
 Richards: William.
 Richardson: Oliver Archer.
 Richmond: Walter Coleridge.
 Rickman: Thomas Miller,
Vice-President.
 Riddle: Frederick Henry Brimble.
 Roberts: Charles Quincey.
 Roberts: Henry Croydon.
 Roberts: Richard.
 Robins: Edward.
 Robins: Edward Cookworthy.
 Robinson: Charles Edward.
 Robinson: Henry.
 Robinson: Henry Herbert.
 Robson: Edward Robert.
 Rogers: William Bennett.
 Roods: Alfred.

LONDON AND NEIGHBOURHOOD—continued.

Fellows:—

Rooke: Alfred Bradley.
 Ruault: John Gu-tave Peter.
 Rumble: Harry Humphrey.
 Rüntz: Ernest Augustus.
 Russell: Murray Lawrence.
 Rushworth: Edmund Walter.
 Rutley: Charles.
 Rutley: Frank.
 Ryan: William Patrick.
 Ryde: Arthur Lyon.
 Ryde: Charles Bertram.

Sadler: George William, Jun.
 St. Quintin: Perry.
 St. Quintin: Richard Samuel.
 Sanday: George Henry.
 Saunders: Cecil George.
 Saunders: Charles Herbert.
 Saunders: Edward.
 Saunders: Martin Luther.
 Saunders: Rutland.
 Savill: Alfred.
 Savill: Alfred, Jun.
 Savill: Edwin.
 Selby: Charles Frederic.
 Selby-Bigge: Chas. P. O.
 Shackle: Edward Neild.
 Sheppard: Ernest.
 Sherrin: John Lester.
 Sherwin: Joseph Henry.
 Shilcock: James.
 Shone: Isaac.
 Shoppee: Charles Herbert.
 Shoppee: Charles John.

Past-President.

Simms: Walter.
 Single: Arthur.
 Skitt: Arthur.
 Slade: James Benjamin.
 Slater: Chas. Frederick.
 Smallpeice: George Baker.
 Smith: Edward.
 Smith: Frank Adams.
 Smith: Frederick Robert.
 Smith: Henry.
 Smith: Henry Herbert.
 Smith: John Moore.
 Smith: Percy Pyne Caldecott.
 Smith: Sidney Robert James.
 Snelling: Henry.
 Squarey: Elias Pitts.
Past-President.
 Squarey: Newell William Pitts.
 Squire: Richard.
 Stanger: Samuel Arthur.
 Stanham: George Gordon.
 Stedman: Charles Mason.
 Stephenson: Charles William.
 Stevens: Charles Vivian.
 Stevens: John William.
 Stevens: William Charles.
 Stevenson: Edmund Herbert.
 Steward: Herbert Thomas.
Member of Council.
 Stock: Henry.
 Stokes: Frederick Vincent.
 Stoner: Alfred.
 Street: William Charles.
 Strudwick: Hayward James.
 Strudwick: William Henry.

LONDON AND NEIGHBOURHOOD—continued.

Fellows:—

Strutt: Hon. Edward Gerald.
 Swain: Ernest.
 Swain: Frank.

Tabberer: Benjamin.
 Tanner: Henry.
 Tapp: Arthur.
 Taker: Henry Hugh.
 Tatham: George Henry.
 Taylor: Arthur William.
 Taylor: Edward Fergusson.
 Taylor: John Herbert.
 Taylor: Richard Frederick.
 Tee: Samuel Clifford.
 Tewson: Edward.
 Tewson: Edward Arthur.
 Theobald: Henry.
 Theobald: Henry Wells Dewhurst.
 Thomas: John Henry.
 Thompson: Arthur Edward.
 Thompson: George William.
 Thurgood: Herbert John.
 Thurgood: William Henry.
 Thynne: Edward Lewis.
 Thynne: Frederick George.
 Thynne: Guy Harry.
 Tidman: Edward.
 Tootell: Richard William.
 Trafford: Frederick Charles.
 Treadwell: Henry John.
 Trist: John William.
 Trollope: Charles Brown.
 Trollope: Henry Charles.
 Trumper: John Alfred.
 Trumper: Richard.
 Tubbs: Walter Burnell.
 Turner: Alexander Henry.
 Turner: Thomas Neve.
 Tunley: George.
 Tyler: James William.
 Tyser: Richard.

Vaizey: John George.

Venables: Frederick.

Vernon: Arthur.

Member of Council.

Vigers: Astley.
 Vigers: Edward.
 Vigers: Leslie Robert.
 Vigers: Martin.
 Vigers: Robert.

Vice-President.

Wadling: Henry John.
 Wadmore: Beauchamp.
 Wagstaffe: Thomas Rogers.
 Walcott: Lyons Roden Sympson.
 Walker: Robert.
 Walker: Samuel.
 Wallace: George.
 Walmsley: Arthur Thomas.
 Ward: George.
 Warner: Alfred Ernest.
 Warner: William Henry.
 Waters: William Richard.
 Watney: Daniel.
President.
 Watney: Dandy.
 Watney: Walter Daniel.
 Watts: Charles.
 Weatherall: Henry.

LONDON AND NEIGHBOURHOOD—continued.

Fellows:—

Weaver: William.
 Webb: William.
 Wharton: Thomas George.
 White: William Henry.
 Whiteley: Charles Percy.
 Wilkinson: George Ayscough.
 Wilkinson: George Herbert.
 Williams: Leonard James.
 Williams: William Herbert.
 Wilson: Sir Jacob.
 Wilson: Stephen Barton.
 Wilson: William Henry.
 Withall: Latham Augustus.
 Withall: Richard Augustus.
 Wood: Charles Bruce.
 Wood: Henry.
 Wood: John Daniel.
 Woodbridge: Stephen, Jun.
 Woods: Henry.
 Woods: Thomas.
 Woodthorpe: Edmund.
 Woodward: William.
 Wreathall: Robert T.
 Wright: George Thomas Green.
 Wrightson: Arthur Frederick.
 York: Henry.
 Young: Andrews.
 Young: Douglas.
 Young: Morgan Henry.
 Young: Thomas.

Professional Associates:—

Andrews: Walter Ely.
 Aris: John Whitton.
 Assiter: Harry G.
 Aylen: Cecil Hugh.
 Balding: Albert.
 Ball: James Benjamin.
 Beadel: Henry Grant.
 Beadel: Maurice Frederick.
 Beken: George, Jun.
 Bell: Herbert Owen.
 Booth: Gilbert William.
 Bousfield: Edwin Vaughan Davenport.
 Briggs: John.
 Brinsley: Herbert George William.
 Brown: George Turville.
 Brown: William Arthur.
 Brown: Wm. Lobin Trant.
 Buckland: William Thomas.
 Bulbeck: George.
 Buss: Fleetwood George William.
 Cardall: Frederic William.
 Carter: Alfred Presley.
 Chalcraft: Henry Terrell.
 Chambers: Theodore Gervase.
 Chapman: Vaughan Godfrey St. John.
 Clayden: Walter.
 Collier: Arthur Charles.
 Cooke: Lionel.
 Cooke: William George.
 Cooper: Alfred William.
 Cresswell: John Theodore Ross.
 Crier: John Thomas.
 Cross: Arnold Charles Martin.
 Crouch: James Leonard.
 Cudlipp: William.
 Cumberbatch: Carlton Parry.

LONDON AND NEIGHBOURHOOD—continued.

Professional Associates:—

Daffarn: Thomas Alfred.
 Darbishire: Harry Vernon.
 Dawson: Walter Henry.
 Debenham: Frederic Kersey.
 Delamare: Frank.
 Dinwiddy: Donald.
 Drew: Allen.
 Eason: Edward William.
 Easton: Walter John.
 Evered: Gilliebrand Elwin.
 Everett: Arthur Sherman.
 Everington: John.
 Eves: Francis George Bertram.
 Fagg: Edwin William.
 Few: Harry Garrard.
 Fitness: John Francis.
 Fitt: Harry Charles.
 Fletcher: George Rivers.
 Fletcher: Herbert Phillips.
 Foster: James Herbert Furnedged.
 Galsworthy: Vincent Somers.
 Garrard: Arthur Norman.
 Garrett: Arthur Berry.
 Gilbert: John Sainsbury.
 Glover: Henry Alexander.
 Gore: William Joll.
 Gow: James.
 Grant: Joseph.
 Green: Edmund Horace.
 Green: Frederick Algernon.
 Green: James Henry Townsend.
 Greenop: Edward.
 Griffin: Alfred.
 Grimes: Ralph Fearon.
 Hales: Arthur John.
 Hamilton: John Paynter.
 Hampton: George Frederick William.
 Harding: Frederick Allcroft.
 Harper: Edgar Josiah.
 Harrison: George John Robertson.
 Hebden: George Radcliffe.
 Heckford: Harley.
 Hedger: Arthur Constantine.
 Hellicar: George Thomas.
 Henry: Edward Hugh.
 Heward: Ernest James.
 Hicks: Stanley.
 Holmes: James Thomas.
 Holmes: John Edward.
 Howell: Ernest John.
 Jarman: William.
 Jarman: Frank Wilmot.
 Jeffree: Sydney.
 Jessett: Charles.
 Jessett: Charles Edward Vernon.
 Johnson: Bernard Marr.
 Jordan: George Henry.
 Jull: William Vincent.
 King: William Isaac.
 Knight: George Edward.
 Lancaster: John Roy.
 Lansdown: George Arthur.
 Larkin: Richard Webster.

LONDON AND NEIGHBOURHOOD—continued.

Professional Associates :—

Lawley: Frederick William.
 Leaning: William Arthur.
 Lewis: Arthur Llewelyn.
 Lightfoot: John George.
 Lovesay: William.
 Lowe: Charles Robert.
 Lucas: Joseph.
 Lynch: James Henry.

McCarthy: Henry Robert.
 Macer: Alfred Thomas.
 Maddox: Harry Edward.
 Martin: Samuel.
 Mason: Charles William Hayley.
 May: William Charles.
 Melrose: Frank.
 Mercer: Charles Edward.
 Merrett: James.
 Miller: Frederick William.
 Milnes: Robert, Junr.
 Morrison: Daniel.
 Moss: Thomas Walter.

Neubronner: Harry Alfred.
 Nicholls: Edward Alfred.
 Norman: James Noel.

Pain: William Henry.
 Pearce: Fred. W.
 Pearce: Frederick William.
 Pearce: William John.
 Perks: Sydney.
 Pewress: Herbert Wilmshurst.
 Phillips: John Henry.
 Physick: Walter Frederick.
 Pilditch: John Jarvis.
 Pinder: Richmond.
 Price: Richard Arnold.
 Pritchard: Herbert Alfred.
 Puckridge: Percival Martin.

Rand: John.
 Read: Walter Herbert.
 Roberts: Charles Gordon.
 Robinson: James Thomas.
 Ross: David James.
 Ruddle: Frank J.

Sabin: Joseph Henry.

Professional Associate of Council.

Satchell: Herbert Arnold.
 Saunders: Samuel Brown.
 Seddon: George Farquharson.
 Selby: Frank.
 Selby-Bigge: Charles P. O.
 Sexby: John James.
 Sherry: Nathaniel.
 Skingle: Alfred.
 Slade: Isaac.
 Sly: Joseph Townson.
 Smith: Alexander George.
 Smyth: Edward.

Professional Associate of Council.

Soutter: Ernest.
 Stacey: William.
 Stainton: Francis Charles.
 Stenning: Percy Haines.
 Stevenson: Frederick J.
 Stower: Joseph.
 Sturgess: John Moore.
 Summerfield: Joseph Charles.

LONDON AND NEIGHBOURHOOD—continued.

Professional Associates :—

Taylor: George.
 Tewson: Leonard.
 Thompson: Alfred.
 Thompson: Joseph Atherden.
 Thurgood: Ernest Charles.
 Tory: John Edward.
 Townsend: George James.
 Tuckett: Percival Fox.
 Tyler: William Bott.

Verity: Ernest George.

Wain: George Sparrow.
 Walker: Leon Victor.
 Warton: Wilfred.
 Watson: George.
 Watson: William James.
 Webster: Hugh Calthrop.
 Wells: Edward Ogbourn.
 Wells: William Henry.
 West: Charles Henry Edward.
 Weston: George.
 Wheeler: Charles Trevor Ogle.
 Wheeler: John Henry.
 Williams: Henry Cuthbert.
 Willoughby: Charles William.
 Wilson: John Hayes.
 Wonnacott: Ernest Wm. Malpas.
 Wood: Leslie Stuart.
 Woods: Arthur George.
 Woodward: Walter Henry.
 Worthington: James Scott.
 Wyles: John Walter.

Associates :—

Banks: John Eldon.
 Barnes: George Frederick.
 Barry: John Wolfe, C.B.,
Associate of Council.
 Batten: John Winterbotham.
 Beale: James Samuel.
 Bidder: George Parker, Q.C.
 Birch: Robert William Peregrine.
 Boulger: George Edward Simonds.
 Bramwell: Sir Fredk. Joseph, F.R.S.
 Bund: John W. Willis.

Cadell: George.
 Castle: Edward James, Q.C.
 Clarke: Sir Edward, Q.C., M.P.
 Clarke: Ernest.
 Clode: Walter.
 Clutton: Hubert Spencer.
 Colam: Robert Frederick.
 Cripps: Charles Alfred, Q.C.

Dowden: Walter Alfred Allen.

Emden: T. Walter L.

Fowler: Sir John, Bart., K.C.M.G.,
 F.R.S.

Freeman: George Mallows.
 Freshfield: Edwin.
 Freshfield: William Dawes.

Grantham: Richard Fuge.

LONDON AND NEIGHBOURHOOD—*continued*.*Associates :—*

Hamilton: Henry Best Hans.
Hamond: Thomas Astley Horace.
Hudson: Alfred Arthur.

James: Sir Henry, Q.C., M.P.

Leworthy: John Henry.
Littler: Ralph Daniel Makinson, Q.C.

Marriott: The Right Hon. Sir William
Thackeray, Q.C., M.P.
Marshall: Frederick.
Mence: Phillip Allan.
Moulton: John Fletcher, Q.C., M.P.
Munton: Francis Keridge.

Pollard: Edward Hutchinson.
Pope: Samuel, Q.C.

Redman: Joseph Haworth.
Rees: John Charles.
Rew: Robert Henry.
Rickards: Arthur George.
Rigg: Herbert Addington.
Ryde: Walter Cranley.

Shopee: Gerald Augustine.
Sladen: St. Barbe.
Statham: William Arnold.
Stephens: Pembroke S., Q.C.
Stevens: William Richard.
Sutton: Henry.

Thomas: George James.

Warren: Reginald Augustus.
Webster: Sir Rehd. Everard, K.C.M.G.,
Q.C., M.P.

Associate of Council,

Wheeler: Thomas Whittenbury, Q.C.
White: His Honour Judge Frederick
Meadows, Q.C.
Will: John Shiress, Q.C., M.P.
Winckworth: Lewis.

MONMOUTHSHIRE.

DIXTON.

Fellow :—

Wanklyn: Phillip Endell.

MONMOUTH.

Fellow :—

Powell: Frederick Atkinson.

NEWPORT.

Fellows :—

Graham: Arthur Gore.
Graham: William.
Hitchcox: William.
Rees: William George.
Tanner: William.

Professional Associate :—

Griggs: Henry Jenner.

PONTYPOOL.

Fellow :—

Llewellyn: David Morgan.

NORFOLK.

ATTLEBOROUGH.

Fellows :—

Bacon: Frank Mace.
Bacon: Horace.
Salter: William Herbert.

CASTLE RISING.

Fellow :—

Beck: Arthur Clement.

CASTON.

Professional Associate :—

Scorer: Alfred George.

COSTON.

Fellow :—

Atkins: Sydney George.

DISS.

Fellow :—

Gaze: Thomas William.

DOWNHAM MARKET.

Fellow :—

Hawkins: Charles.

EAST DEREHAM.

Fellow :—

Ireland: Edwin Benjamin.

EAST RAYNHAM.

Fellow :—

Gayford: Henry John.

HORSTEAD.

Fellow :—

Falcon: Michael.

KIRBY-CANE.

Fellow :—

Upcher: Edward Berners.

KING'S LYNN.

Fellows :—

Wilkin: Horace Martin.
Wright: William Edward.

MELTON CONSTABLE.

Professional Associate :—

Astley: Reginald Basil.

NORWICH.

Fellows :—

Beck: Edward William.
Hornor: Charles Jared.
Hornor: Francis.
Mills: Samuel Mealing.
Morgan: Benjamin Brauford.
Rose: Thomas.
Scott: Augustus Frederic.
Spelman: Clement Charles Rix.

Professional Associates :—

Bruce: Alexander David.
Forster: Walter Hill.
Spelman: William Wilton Rix.

RAYNHAM.

Fellow :—

Davey: John George Ellis.

NORFOLK—*continued.*

SANDRINGHAM.

Fellows :—

Beck: Arthur Clement.

Beck: Frank Reginald.

SWAFFHAM.

Professional Associate :—

Tallent: Edwin James.

THETFORD.

Fellow :—

Barker: Caleb.

Professional Associate :—

Menzies: Robert.

WEST RUDHAM.

Fellow :—

Freuer: William.

NORTHAMPTONSHIRE.

BRACKLEY.

Professional Associate :—

Marriott: Cecil Wynn.

CASTLE ASHBY.

Fellow :—

Roney-Dougal: John Dougal.

CASTOR.

Professional Associate :—

Staunton-Wing: George.

HORTON.

Fellow :—

Cave: Thomas Newman.

KETTERING.

Fellow :—

Bolam: Charles Godfrey.

Professional Associate :—

Lightfoot: Frank Prideaux.

NORTHAMPTON.

Fellows :—

Cave: Henry H.

Law: Edmund.

Merry: Thomas.

Seriven: Richard George.

OVERSTONE.

Fellow :—

Dickson: Thomas Arthur.

PETERBOROUGH.

Fellows :—

Edwardes: Charles Bidwell.

Laurance: John.

Lyster: Thomas Rice Somerville.

Norton: Thomas Herbert.

SYWELL.

Professional Associate :—

Whittaker: John Dronsfield.

NORTHAMPTONSHIRE—*continued.*

THRAPSTONE.

Fellow :—

Bletsae: Henry Hopkinson.

Professional Associate :—

Wright: Thomas Hawkins.

WELLINGBOROUGH.

Fellow :—

Cutlan: John Ellis.

WIGSTHORPE.

Professional Associate :—

Barker: Geoffrey Lionel.

NORTHUMBERLAND.

ALNWICK.

Fellows :—

Tomlinson: Thomas.

Wilson: Sir Jacob.

BOTHAL.

Fellows :—

Sample: Thomas.

Sample: William Collings.

GOSFORTH.

Fellow :—

Aynsley: Robert John.

MATFEN.

Fellow :—

Sample: Charles Herbert.

NEWBURN-ON-TYNE.

Professional Associate :—

Taylor: Harry William.

NEWCASTLE-UPON-TYNE.

Fellows :—

Armstrong: Thomas John.

Bolam: William Thomas.

Forsyth: Thomas Hills.

Nicholson: Thomas Cooke.

Taylor: John William.

Professional Associate :—

Allen: John Parnell.

WYLAM.

Fellow :—

James: Christian Hugh.

NOTTINGHAMSHIRE.

BABWORTH.

Fellow :—

Parkin: William.

BEESTON.

Fellow :—

Bowley: John Cross.

CLIFTON.

Fellow :—

Haynes: Henry.

NOTTINGHAMSHIRE—*continued*,

EAST BRIDGFORD.

Fellows :—

Beaumont: Charles.

Beaumont: George.

EPPERSTONE.

Fellow :—

Huskinson: William Lambe.

Professional Associate :—

Huskinson: Thomas William.

MANSFIELD.

Fellows :—

Turner: Frederick John.

Vallance: Robert Frank.

Professional Associate :—

Butterworth: Josiah.

NEWARK-UPON-TRENT.

Fellow :—

Bailey: William Smith.

NORTH COLLINGHAM.

Professional Associate :—

Hawes: Frederick Kirk.

NOTTINGHAM.

Fellows :—

Barnes: John William James.

Calvert: Arthur Richard.

Evans: Robert.

Hine: George Thomas.

Walker: Herbert.

Walker: Joseph.

Professional Associates :—

Leverson: Frank John Waldemar.

Payne: William Percy.

NUTTALL.

Fellow :—

Taylor: Samuel.

OLLERTON.

Fellows :—

Bell: Joseph Askew.

Wordsworth: Robert Walter.

OSBERTON.

Fellow :—

Lister-Kaye: Charles Wilkinson.

RADCLIFFE-ON-TRENT.

Fellow :—

Morris: Charles.

RETTFORD.

Fellows :—

Walker: Joshua.

Young: Harry Austin Lindsay.

SOUTH COLLINGHAM.

Fellows :—

Wigram: John.

Woolley: Reginald.

Woolley: Thomas Cecil Smith.

NOTTINGHAMSHIRE—*continued*.

WOLLATON.

Fellows :—

Wright: Charles William.

Wright: William.

Member of Council.

WORKSOP.

Fellow :—

Turner: Thomas Warner.

Professional Associate :—

Bower: Arthur Wentworth Chivers.

OXFORDSHIRE.

BICESTER.

Fellows :—

Holiday: Frederick Dean.

Little: William Davis.

Professional Associate :—

Holiday: Percy Cave.

HEADINGTON.

Professional Associate :—

Rose: Edward Joseph.

HENLEY-ON-THAMES.

Fellows :—

Simmons: Charles.

Simmons: Charles Franklin.

Simmons: William Anker.

KIDLINGTON.

Fellow :—

Scroggs: William.

MIDDLE ASTON.

Professional Associate :—

Little: Henry.

OXFORD.

Fellows :—

Castle: Arthur.

Castle: Harold.

Field: Francis Hayward.

Galpin: Charles Alexander.

Lightfoot: Henry Le Blanc.

TETSWORTH.

Professional Associate :—

Watson: James Bruce.

WITNEY.

Fellow :—

Habgood: Henry Charles.

Professional Associate :—

Bateman: Arthur Charles.

WROXTON.

Fellow :—

Davis: Charles Edward.

RUTLANDSHIRE

OAKHAM.

Fellows :—

Royce: David Needham.

Royce: John.

SHROPSHIRE.

BARROW.

Fellow :—

Thursfield: Thomas Howells.

BRIDGNORTH.

Fellows :—

De Wend: William Fenton.

Wyley: Henry James.

CHIRBURY.

Fellow :—

Morris: Edward Henry.

Professional Associate :—

Morris: William Henry.

CLEOBURY NORTH.

Fellow :—

Dodgson: Wilfred Longley.

ELLESMERE.

Fellow :—

Tower: Brownlow Richd. Christopher.

HAWKESTONF.

Fellow :—

Hall: William Timothy.

KNOCKIN.

Fellow :—

Griffiths: Edward, Jun.

LEATON.

Fellow :—

Hickman: Thomas.

LUDLOW.

Fellows :—

Dodgson: Wilfred Longley.

Fenn: Thomas.

LYDBURY NORTH.

Fellows :—

Newill: Robert Henry.

Ward: Felix John.

Professional Associate :—

Parry: Richard Frederick.

OSWESTRY.

Fellow :—

Lawford: William Robinson.

SHIFNAL.

Fellow :—

Lane: Cecil Newton.

SHROPSHIRE—continued.

SHREWSBURY.

Fellows :—

Bather, John T.

Burd: Laurence.

Burd: Timotheus Henry.

Davis: Alfred Thomas.

Evans: William Ernest.

Owen: Henry.

Wyley: William John.

Professional Associates :—

Armytage: Francis Reginald.

Salt: Reginald Nowell.

UPPINGTON.

Fellow :—

Ashdown: Augustus Harding.

WESTON-UNDER-REDCASTLE.

Fellow :—

Evans-Vaughan: Henry.

WHITCHURCH.

Fellow :—

Palamountain: Joseph William.

SOMERSETSHIRE.

BATH.

Fellows :—

Farwell: Frederick George.

Silcock: Thomas Ball.

Spackman: Charles Chantry.

Spackman: Henry.

Professional Associate :—

Thomas: Edward Morgan Dawson.

BRUTON.

Fellow :—

Bennett: Thomas Oatley.

DULVERTON.

Fellow :—

Oakley: Edward Benjamin.

HUTTON.

Fellow :—

Edwards: Arthur Phippen.

KEYNSHAM.

Fellow :—

Daniel: Harry Augustus Hood.

LONG ASHTON.

Fellow :—

Walker: Joseph Arthur.

MISTERTON.

Fellows :—

Combes: Cyrus.

Parsons: Frank Donisthorpe.

Parsons: Henry.

Parsons: Robert Maurice Peters.

NORTH CURRY.

Fellow :—

Peard: John Grigg.

SOMERSETSHIRE—*continued.*

NORTON ST. PHILIP.
Fellow :—
 Olphant: George A. J.

PRESTON.
Professional Associate :—
 Roberts: Joseph William George.

SHEPTON MALLET.
Fellows :—
 Heard: Herbert.
 Wainwright: Charles Rawlinson.

SOUTH PETHERTON.
Fellow :—
 Hebditch: William Benjamin.

TAUNTON.
Fellows :—
 Hussey: Frank Tooze.
 Knollys: James Edward.

WELLS.
Fellows :—
 Hippisley: Edwin.
 Hippisley: Edwin Maggs.
 Hippisley: William John.

WESTON-SUPER-MARE.
Fellows :—
 Ransford: Benjamin Herbert.
 Wooler: Walter Hernaman.

WILLITON.
Fellow :—
 Andrew: Thomas Hawkes.

STAFFORDSHIRE.

BRERETON.
Fellow :—
 Hussey: Robert.

BURTON-ON-TRENT.
Fellow :—
 Winterton: Wm. Moxon.

ENDON.
Fellow :—
 Heaton: George Herbert.

ENVILLE.
Fellow :—
 Punchard: Frederick Burt.

HANLEY.
Fellow :—
 Forshaw: Edward.

KEELE.
Fellow :—
 Boothby: Henry Vernon.

LICHFIELD.
Fellows :—
 Inge: Charles Henry.
 Winterton: Harry John Campion.

STAFFORDSHIRE—*continued.*

LITTLE INGESTRE.
Fellow :—
 Mynors: Walter Charles Towers.

PENKRIDGE.
Fellow :—
 Foden: Edward Autrobus.

STAFFORD.
Fellows :—
 Sandy: Henry.
 Turnor: Exsuperius Weston.
Professional Associate :—
 Hill: Alfred.

STOKE-UPON-TRENT.
Fellow :—
 Lynam: Charles.

STRAMSHALL.
Fellow :—
 Forshaw: Edward.

TAMWORTH.
Fellow :—
 Arnold: William.
Professional Associate :—
 Bidwell: Shelford.

UTTOXETER.
Fellow :—
 Hardy: Richard Thomas Ash.

WEST BROMWICH.
Fellow :—
 Eayrs: John Thomas.

WOLVERHAMPTON.
Fellows :—
 Duncalfe: Henry George.
 Nock: Benjamin Bowen.
Professional Associates :—
 Bradley: James William.
 Vale: Henry.

SUFFOLK.

BECCLES.
Fellow :—
 Pells: Arthur.

BURY ST. EDMUNDS.
Fellows :—
 Elencowe: George.
 Scott: Henry Lacy.
Professional Associate :—
 Scott: Archibald Lacy.

EYE.
Fellow :—
 Garrard: Norton Burroughs.

HOLLESLEY.
Professional Associate :—
 Baker: Cecil Cautley.

SUFFOLK—continued.

HORSECROFT.
Fellow :—
 Simpson: Robert Thomas.

IPSWICH.
Professional Associates :—
 Bond: Frederick George.
 Cheney: Edwin John.
 Turner: Percy.

LAVENHAM.
Professional Associate :—
 Scott: Thomas.

LIVERMERE.
Fellow :—
 Fergusson: James.

LOWESTOFT.
Fellow :—
 Pells: Arthur.
Professional Associate :—
 Crosier: Charles.

NEWMARKET.
Fellow :—
 Boa: Andrew.

SOMERLEYTON.
Fellow :—
 Rix: George Kerry.

SUDBURY.
Fellow :—
 Coote: George.

WOODBIDGE.
Fellow :—
 Gardner: Gilbert.
Professional Associate :—
 Arnott: John.

SURREY.

ADDLESTONE.
Fellow :—
 Dash: Thomas Alexis.

CHERTSEY.
Professional Associate :—
 Waterer: Clarence.

COBIAM.
Fellow :—
 Pattisson: Jacob Luard, C.B.
Associates :—
 Seth-Smith: Archibald.
 Seth-Smith: Hugh Garden.

DORKING.
Fellows :—
 White: Charles Alexander.
 White: Jones Alexander.

SURREY—continued.

ENGLEFIELD GREEN.
Fellows :—
 Bond: Erasmus.
 Menzies: William.
 Simmonds: Frederick.

FARNHAM.
Fellows :—
 Eggar: James Alfred.
 Nash: Alfred James.
Professional Associate :—
 Williams: William Welsby.
Associate :—
 Wing: Thomas Twining.

GODALMING.
Fellow :—
 Mellersh: Alfred William.

GUILDFORD.
Fellows :—
 Baxter: George.
 Drewitt: George.
 Ellis: Ernest Harold.
 Lee: William.
 Messenger: William Harry.
 Smallpiece: George Baker.
Professional Associate :—
 Hewett: George Thompson.

HORSLEY (EAST).
Professional Associate :—
 Sowels: William Clowes.

KINGSTON-ON-THAMES.
Fellows :—
 Dawson: John George.
 Horsfield: J. Nixon.
 Page: George Frederick.
 Phillips: William Edwin.

LEATHERHEAD.
Fellow :—
 Noel: Byron Bruce.

MITCHAM.
Fellow :—
 Chart: Robert Masters.

MOLESEY (EAST).
Fellow :—
 Moore: A'gernon.

OXTED.
Fellow :—
 Osenton: George, Jun.

REDHILL.
Fellow :—
 Stacey: Harrie.
Professional Associate :—
 Mew: Robert Heath.

SURREY—continued.

REIGATE.

Fellows :—

Bellingham: Archibald Turner.
Burchell: Sidney Herbert.
Clutton: Henry.
Clutton: Ralph William.
Dyball: Sextus.
Lees: John.
Pym: George Edwin.

Professional Associates :—

Morrison: Gerard Donald.
Thornton: William Henry.

RICHMOND.

Fellows :—

Chancellor: Albert.
Houghton: John Pounds.
Maynard: Edward.
Partridge: Edward John.

Professional Associates :—

Crookes: Charles Reginald.
Heasler: Holland Charles.
Jenkinson: John.
Sturley: Arthur Dyson.

SOUTH NUTFIELD.

Professional Associate :—

Norris: Edward James.

WALTON-ON-THAMES.

Fellow :—

Dash: Roland Ashford.

WEYBRIDGE.

Fellows :—

Pilditch: Philip Edward.
Synge: Edward Millington.

Professional Associate :—

Rigden: Charles Furner.

WOKING.

Professional Associate :—

Mann: Frederick Charles Thomas.

SUSSEX.

BRIGHTON.

Fellows :—

Ingram: Walter Fielde.
Parsons: Frederick Cecil.
Quick: Frederick William.
Welch: Frederick William.
Wilkinson: Thomas.

Professional Associates :—

Cox: Reginald John.
Mellor: James Frederick.
Udny: Augustus Charles.

CHICHESTER.

Fellows :—

Hobgen: Francis Neale.
Hobgen: Thomas Cecil.
Wyatt: Oliver Newman.

SUSSEX—continued.

CRAWLEY.

Fellow :—

Wood: William.

Professional Associate :—

Taylor: George.

EASTBOURNE.

Professional Associates :—

Johas: Percy.
Woolnough: John William.

EAST GRINSTEAD.

Fellow :—

Turner: Charles.

FIRLE.

Professional Associate :—

Scarlett: Harry.

FRAMFIELD.

Professional Associate :—

Thompson: Charles William George
Hugh.

HAILSHAM.

Fellow :—

Burtenshaw: Albert.

HASTINGS.

Fellows :—

Davey: Henry Thomas.
Dray: Alfred.
Welch: Frederick William.
Wilkinson: Thomas.
Woodhams: James.

Professional Associates :—

Hardiman: Harry.
Kennett: Charles Arthur.
Miller: George Frederick.
Saker: Sydney.

HAYWARD'S HEATH.

Fellow :—

Bannister: Thomas.

Professional Associate :—

Bannister: Tom Harrison Caffyn

HORSHAM.

Fellows :—

Chasemore: Philip.
King: Frank Hulme.

HOVE.

Fellow :—

Hudson: Edward William.

Professional Associate :—

Jenner: William.

LEWES.

Fellows :—

Card: Henry Curtis.
Ingram: Walter Fielde.
Morris: Herbert.
Powell: Hubert John.
Powell: Reginald Henry.

Professional Associate :—

Card: Henry.

SUSSEX—*continued*.

LITTLEHAMPTON.

Fellow :—
Howard: Harry.

ORE.

Associate :—
Williams: Thomas D.

PETWORTH.

Fellows :—
Taylor: Matthew.
Watson: Herbert Edward.

PEVENSEY.

Fellow :—
Beard: Edwin Thomas.

RYE.

Fellow :—
Reeve: Kingsnorth.

SOUTHWATER.

Fellow :—
Smith: Sidney.

UCKFIELD.

Fellow :—
Colgate: Thomas.

WADHURST.

Fellow :—
Austen: Frank.

WARWICKSHIRE.

ALCESTER.

Fellow :—
Raikes: Col. George Whittington.

BIRMINGHAM.

Fellows :—
Arnold: William.
Bettridge: Edward.
Bickerton-Williams: Edward.
Couchman: Robert Edward.
Fowler: Gerard Edmund.
Fowler: Henry.
Fowler: Richard.
Fowler: William.
Gibson: Denston.
Godfrey: Robert.
Grimley: Edwin Fearn.
Grimley: Thomas.
Hadley: Frank.
Hedley: Robert Wilkin.
Hendriks: Henry.
Holbeche: Robert Neville.
Jenkins: Oswald.
Kenwick: George.
Ludlow: Walter Robert.
Mason: William Arthur.
Mathews: George Spencer.
Pemberton: Charles Oliver Paget.
Robins: William Henry.
Roderick: John.

WARWICKSHIRE—*continued*.

BIRMINGHAM.

Fellows :—
Smith: Frank.
Willmot: George Dyott.
Willmot: John.

EDGBASTON.

Fellow :—
Mathews: William.
Professional Associate :—
Mathews: Lewis Osler.

KENILWORTH.

Fellow :—
Whittendale: James.

KNOWLE.

Fellow :—
Ludlow: Walter Robert.

LEAMINGTON.

Fellow :—
Fayerman: George Metcalfe.

LEEK WOOTTEN.

Fellow :—
Donne: Henry.

MILVERTON.

Fellow :—
Smith: Frank William.

NUNEATON.

Fellow :—
Evans: Walter Pearson.
Professional Associate :—
Staley: Albert Henry.

STRATFORD-ON-AVON.

Fellow :—
Deer: Edward.

WARWICK.

Fellows :—
Couchman: Henry Boteler.
Fosbery: William Thomas Exham.
Margetts: John William.

WESTMORELAND.

KENDAL.

Fellows :—
Banks: John.
Hoggarth: Arthur.
Hoggarth: Edwin.
Webster: Alexander.

KIRKBY LONSDALE.

Fellow :—
Punchard: Frederick.
Professional Associate :—
Punchard: Charles Bates.

MILNTHORPE.

Fellow :—
Holme: John.

WILTSHIRE.

CHIPPENHAM.

Fellows:—

Holloway: Thomas.
Marshall: Lionel Hasler.
Napier: Henry Burroughes.
Smith: Henry Herbert.
Watkins: Robert Arundel.

Professional Associates:—
Brinkworth: Robert Edwin.
Thring: Douglas Theodore.

DEVIZES.

Fellow:—

Canning: William Browne.

DOWNTON.

Fellows:—

Squarey: Elias Pitts,
Past-President.
Squarey: Newell William Pitts.

Associates:—

Fream: William.
Wrightson: John.

HAM.

Professional Associate:—
Burder: Reginald Edward Campbell.

MARLBOROUGH.

Fellow:—

Jeans: Mark.

PEWSEY.

Fellow:—

Ferris: George.

SALISBURY.

Fellows:—

Bath: Fred.
Canning: William Browne.
Gater: Caleb William.
Hannen: Reginald St. John.
Rawlence: Ernest Alfred.
Rawlence: James Edward.
Rigden: Francis.
Rigden: Henry William.
Squarey: Elias Pitts,
Past-President.
Squarey: Newell William Pitts.
Waters: Edward.
Woolley: John Turton.

SWINDON.

Fellows:—

Bishop: Charles.
Pritchett: Ellis Herbert.

TISBURY.

Fellow:—

Combes: Cyrus.

TROWBRIDGE.

Fellows:—

Foley: John Howard.
Mundy: Herbert.

Professional Associate:—
Snailum: Walter Wadman.

WILTSHIRE—continued.

WINCHESTER.

Fellow:—

Smith: George Alfred.

WOOTTON-BASSETT.

Fellow:—

Treplin: Ernest C.

WORCESTERSHIRE.

BALSALL HEATH.

Professional Associate:—
Perkins: Joseph.

BROMSGROVE.

Fellow:—

Sanders: Thomas.

DODDERHILL.

Fellow:—

Green: John.

EVESHAM.

Fellows:—

Righton: Edward Grantham.
Smith: William.

KIDDERMINSTER.

Fellow:—

Joseland: Charles.

KINGS NORTON.

Fellow:—

Tomson: James John.

MADRESFIELD.

Fellow:—

Stallard: William.

MALVERN LINK.

Fellow:—

Stallard: William.

MOSELEY.

Professional Associate:—
Barclay: Thomas.

STOURBRIDGE.

Fellows:—

Fiddian: William.
King: Henry.

Professional Associates:—
Barratt: Harry.
Punchard: Frederick Burt.

STOURPORT.

Fellow:—

Clarke: Alfred Dudley.

WORCESTER.

Fellows:—

Buck: Albert,
Member of Council.
Buck: Herbert Wilson.
Everill: Frank.
Finn: Herbert Archibald.
Parker: William Henry.

YORKSHIRE.

ABERFORD.

Professional Associate :—
Prater: Thomas Herbert.

BALDERSBY.

Fellow :—
Gregson: William.
Peirson: George Brodrick.

BANNER CROSS.

Professional Associate :—
Wilson: Alexander Mills.

BARNESLEY.

Fellow :—
Wade: John.
Professional Associate :—
Wade: Henry.

BEDALE.

Fellow :—
Clarke: Christopher.
Professional Associate :—
Maughan: John.

BEVERLEY.

Fellow :—
Evans: William.

BINGLEY.

Fellow :—
Armistead: Richard.

BRADFORD.

Fellows :—
Clare: Edward Lovell.
Cowgill: Brian Bollans Hird.
France: Arthur Alderson.
France: Charles.
Gott: Charles.
Gott: Charles Henry.
Hindle: John.
Jackson: Samuel.
Milnes: Eli.
Smith: Frederic Ellison.
Smith: Harry Russell.
Smith: Joseph.
Smith: Wheeler.
Woodhead: William Booth.

BRIGHOUSE.

Fellow :—
Armytage: George John.

BRODSWORTH.

Fellow :—
Baines: Matthew Talbot.

BURTON CONSTABLE.

Professional Associate :—
Theakston: William Pease.

CLAPHAM.

Fellow :—
Bateman: John.

DONCASTER.

Professional Associate :—
Peace: Alfred Lindley.

YORKSHIRE—continued.

EBBERSTON.

Fellow :—
Bradley: William Edward.

GOOLE.

Fellow :—
Hobson: Harry.
Professional Associate :—
Tudor: Edward Charles Buchanan.

GUISBROUGH.

Fellow :—
Clarke: John William.

HALIFAX.

Fellows :—
Buckley: George.
Fox: Charles James.
Horsfall: Richard.
Member of Council.
Horsfall: Richard Edgar.
Jackson: Benjamin Whitehead.
Professional Associates :—
Fox: Charles Edward.
Hebblethwaite: Charles Henry.

HARROGATE.

Fellow :—
Birkett: William.

HOVINGHAM.

Fellow :—
Hornsby: Robert.

HUDDERSFIELD.

Fellows :—
Abbey: Joe Burman.
Crowther: John Herbert.
Demetriadi: Thomas Marsden.
Dransfield: Henry Brook.
Hanson: John Henry.
Professional Associate :—
Shaw: Arthur.

HULL.

Fellows :—
Bilson: John.
Botterill: William.
Brodrick: John.
Easton: John H.
Fillingham: Edward.
Fryer: George.
Hebblethwaite: Louis.
Tiffen: John Henry.
Todd: William Henry.
Watson: John.
Wellsted: William Henry.
White: Alfred Edward.

KEIGHLEY.

Fellow :—
Broster: Robert Buck.
Professional Associate :—
Weatherhead: David Wilkinson.

KIVERTON PARK.

Fellow :—
Carrington: Thomas.

YORKSHIRE—continued.

LEEDS.

Fellows :—

Cundy: Hubert John.
Fenwick: Thomas.
Gott: Frank.
Hepper: John.
Jones: James William.
Leather: George Herbert.
Newsam: Samuel Waterhouse
Oldroyd: Linley.
Richardson: John.
Wison: Thomas.

Professional Associate :—
Muir: James.

LOWTHORPE.

Fellow :—

Picrey: Henry Onslow.

MANNINGHAM.

Professional Associate :—
Pochin: Thomas Clement.

MARKET WEIGHTON.

Fellow :—

Chowen: Henry Llewellyn.

MIDDLESBOROUGH.

Fellow :—

Lofthouse: Roger.

NORTON.

Fellow :—

Abbott: Robert Thomas G.

OULTON.

Fellow :—

Farrer: John.

PENISTONE.

Professional Associates :—
Hinchcliffe: John, Jun.

PONTEFRACT.

Fellow :—

Watson: John, Jun.

RAWCLIFFE.

Fellow :—

Wright: James.

REDCAR.

Fellow :—

Rutherford: James.

SEACROFT.

Professional Associate :—
Townend: William.

SEDBERGH.

Fellow :—

Dent: Ralph John.

SHEFFRIDGE.

Professional Associate :—
Jackson: Alfred Ernest.

YORKSHIRE—continued.

SHEFFIELD.

Fellows :—

Ellison: Michael.
Flockton: Thomas James.
Fowler: Frederick.
Fowler: Reginald William.
Innocent: Charles John.
Marshall: Peter.
May: Thomas Henry.
Wilde: William.

SKIRLAUGH.

Professional Associate :—
Hollis: Ralph.

SLEIGHTS.

Fellow :—

Popple: John.

WAKEFIELD.

Fellows :—

Greaves: John Oldroyd.
Kaye: John Edward.
Massie: Frank.

WETHERBY.

Fellow :—

Cundy: Hubert John.

WHITBY.

Fellow :—

Kirkby: Herbert.

YORK.

Fellows :—

Cox: Edward Samuel.
Clutton: William James.
Forbes: Charles Mansfield.
Fryer: George.
Jolly: John Hawkins.
Walker: Francis Elliott.
Watson: Herbert Edward.

Professional Associates :—
Carr: Thomas Edmund.
Kerr: Arthur Herbert.
Lee: George Cansfield.
Pegge: John Thomas.
Skeat: Arthur Percival.

IRELAND.

CLARE.

CLARE CASTLE.

Fellow :—

Green: Alfred William.

DERRY.

COLERAINE.

Fellow :—

Given: Maxwell.

DUBLIN.

DUBLIN

Fellows :—
 Barton: John George.
 Gibb: William Pashley.

KILDARE.

CURRAGH CAMP.

Fellow :—
 Randall: Richard.

MAYO.

MAYO.

Fellow :—
 Joynt: George Lawrence.

SHRULE.

Professional Associate :—
 Child: Charles.

WEXFORD.

ENNISCORTHY.

Fellow :—
 Grey: Charles Grey.

SCOTLAND.

ABERDEENSHIRE.

ABERDEEN.

Associate :—
 Forbes: Alexander.

ARGYLESHIRE.

DUNOON.

Fellow :—
 Mackintosh: Charles John Maclean.

AYRSHIRE.

KILMARNOCK.

Fellows :—
 Duke: Freke Guy Rashleigh,
 Turner: Joseph Harling.

Professional Associates :—
 Henderson: Richard.
 Mitchell: Lewis.

EDINBURGHSHIRE.

EDINBURGH.

Fellow :—
 Laurence: Peter.

LANARKSHIRE.

GLASGOW.

Fellows :—
 Barr: James.
 Binnie: Thomas.
 Brown: William.
 Burnet: Frank.
 Copland: William Robertson.
 Danskin: John.
 Fraser: William.
 Hill: Thomas Nelson.
 Laing: John.
 Lammie: George.
 MacDougall: Robert.
 Munro: Daniel.
 Parnie: James.
 Smellie: Thomas Davies
 Whyte: William McNicol.

SUTHERLANDSHIRE.

GOLSPIE.

Fellow :—
 McLean: Donald.

WALES.

ANGLESEY.

LLANFAIR, P.G.

Fellow :—
 Jones: William Edward.

BRECKNOCKSHIRE.

BRECON.

Fellow :—
 Williams: Gerald Garnous.

CRICKHOWELL.

Fellow :—
 Coles: Samuel Hood Cowper.

CARMARTHENSHIRE.

LLANWRDA.

Fellow :—
 Davies: John Morgan.
Professional Associate :—
 Davies: Cyril Froodvale.

LLANELLY.

Fellows :—
 Blake: George.
 Griffiths: William.
 Wilkins: William.

CARNARVONSHIRE.

BANGOR.
Fellow :—
 Dew: William Arther.

CARNARVON
Fellow :—
 Williams: William Lloyd.

CRICCIETH.
Fellow :—
 Jones: Walter Butler Clough.

PORTMADOC.
Fellow :—
 Roberts: Thomas.

DENBIGHSHIRE.

DENBIGH.
Fellow :—
 Clough: Richard Charles Butler.

COLWYN BAY.
Fellow :—
 Porter: John Merry.

LLANRWST.
Fellow :—
 McIntyre: Peter.

LLANGWRN.
Fellow :—
 Darley: William.

FLINTSHIRE.

HAWARDEN.
Fellow :—
 Swetenham: Henry.

MOSTYN.
Fellow :—
 Pickering: William Cloves.

ST. ASAPH.
Fellow :—
 Birch: Richard Elwyn.

GLAMORGANSHIRE.

CARDIFF.
Fellows :—
 Blossie: Edward F. Lynch.
 Brown: Thomas Forster.
 Corbett: Edwin Wortley Montagu.
 David: Edmund Ussher.
 Harpur: William.
 Rees: Ithel Treharne.
 Rigg: Charles.
 Rooney: Samuel.
 Thomas: George.
 Waring: Charles Edward.
Professional Associates :—
 David: George Willoughby.
 Thomas: Iltyd.

GLAMORGANSHIRE—continued.

NEATH.
Fellow :—
 Sheppard: Osborne.

PONTYPRIDD.
Fellow :—
 Evans: Arthur Owen.
Professional Associate :—
 Jones: David Pugh.

ST. FAGANS.
Fellow :—
 Forrest: Robert.
Professional Associate :—
 Forrest: William.

SWANSEA.
Fellows :—
 Price: Francis Holborrow Glynn.
 Roes: William John.

MERIONETHSHIRE.

BALA.
Fellow :—
 Williams: John.

TOWYN.
Fellow :—
 Gillart: David.

MONTGOMERYSHIRE.

KERRY.
Fellow :—
 Poundley: John Edward.

LLANIDLOES.
Fellows :—
 Grant: James.
 Powell: Evan.

NEWTOWN.
Fellow :—
 Owen: William Scott.

WELCHPOOL.
Fellow :—
 Addie: William Forrester.

PEMBROKESHIRE.

HAVERFORDWEST.
Fellows :—
 Owen: Thomas Henry.
 Owen: Thomas Rule.

PEMBROKE.
Fellow :—
 Thomas: William.

RADNORSHIRE.

GLASBURY.

Professional Associate :—
Ganter: James.

RHAYADER.

Fellow :—
Williams: Stephen William.

CHANNEL ISLANDS.

GUERNSEY.

Professional Associate :—
Morrish: Hugh Kenneth.

FOREIGN PARTS.

BAHAMAS.

Colonial Fellow :—
Miller: William.

BARBADOES.

Colonial Fellow :—
Bowen: Ernest Francis Sinderby.

BLOEMFONTEIN.

Professional Associate :—
Stucké: William Henry.

BRITISH HONDURAS.

Fellow :—
Usher: Alfred.

BUENOS AYRES.

Fellow :—
Gordon: Charles Grimston.

CALIFORNIA.

Professional Associate :—
Brevetor: Thomas.

FOREIGN PARTS—continued.

CHINA.

Fellow :—
Mancock: William St. John Hu.

COSTA RICA.

Associate :—
Jough: John Isidore de.

DEMERARA.

Colonial Fellow :—
Anderson: Chas. Wilgress.

JAMAICA.

Professional Associate :—
Hollis: Herbert.

Colonial Fellow :—
Liddell: Walter Colin.

JOHANNESBURG.

Fellow :—
Farrar: Sidney Howard.

Professional Associates :—
Irvine: Archibald Wyndham.
Stucké: William Henry.

Associate :—
Williams: Thomas D.

NEW SOUTH WALES.

Colonial Fellow :—
Clark: Gaius.

NEW ZEALAND.

Associate :—
Seth-Smith: Hugh Garden.

QUEENSLAND.

Professional Associate :—
Grimes: Ralph Fearon.

STRAITS SETTLEMENTS.

Fellow :—
Koch: John Godfrey

VICTORIA.

Colonial Fellow :—
Henderson: James Allen.









